

STUDENT NAME \_\_\_\_\_

# ***New Jersey***

## **Grade Eight Proficiency Assessment 2000-2001 Sample Test Form THIRD EDITION**



# LANGUAGE ARTS LITERACY

## DIRECTIONS – PART 1

Today you are going to take part of the Grade Eight Proficiency Assessment for Language Arts Literacy. The assessment contains different types of text and different activities. In the first part of the test, you will look at a picture and then complete a writing task. In this activity, you have an opportunity to demonstrate how well you can organize and express your ideas in written text. You have received a Writer's Checklist of important points to remember as you write. Educators who read your writing will consider these important points when they read and score your writing.

You will have 25 minutes to complete the first writing task. Take a few minutes to think about the task and to plan what you want to say before you begin to write. You may use the prewriting/planning space to plan your text, but your prewriting will not be scored. Only your writing on pages 2-3 in your answer folder will be scored. Do your best to make your writing clear and well-organized. Keep your purpose in mind as you write and use your checklist.

You must use a No. 2 pencil. You may either print or write your final copy. You may not use a dictionary or any other reference materials during the test. However, you may use the Writer's Checklist. If you finish before the time is called, review what you have written using the Writer's Checklist to read critically and improve what you have written. Then, close your test booklet and wait quietly until you receive further instructions.



# LANGUAGE ARTS LITERACY - PART 1



David Burnett/CONTACT

## WRITING TASK A

Every picture tells a story, but the stories we see may be different. Look closely at the picture. What story is it telling? Use your imagination and experience to speculate what the story is about or to describe what is happening.

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# PREWRITING/PLANNING SPACE

When you finish your planning, turn to page 2 in your answer folder.

END OF PART 1

Be sure to write your draft on pages 2-3 in your answer folder. You may check your work on this part only.



**DO NOT GO ON TO PART 2  
UNTIL YOU ARE TOLD TO DO SO.**



## LANGUAGE ARTS LITERACY DIRECTIONS – PART 2

In this part of the test, you will read a persuasive passage and then respond to the multiple-choice and open-ended questions that follow it. You may look back at the passage and make notes in your test booklet if you like, but you must write your answers in your answer folder.

You will have 35 minutes for this part of the test. If you finish this part before the time is called, close your test booklet and wait quietly until you receive further instructions.

## LANGUAGE ARTS LITERACY - PART 2

**DIRECTIONS FOR QUESTIONS 1–10:** Read the passage and record your answers to the multiple-choice questions in the area labeled “LANGUAGE ARTS LITERACY – PART 2, MULTIPLE-CHOICE SECTION” on page 4 in your answer folder.

**Introduction:** Author and fisherman Fred M. Collier examines the image that many people have of killer whales, or orcas.

### Pirates in Tuxedos

by Fred M. Collier

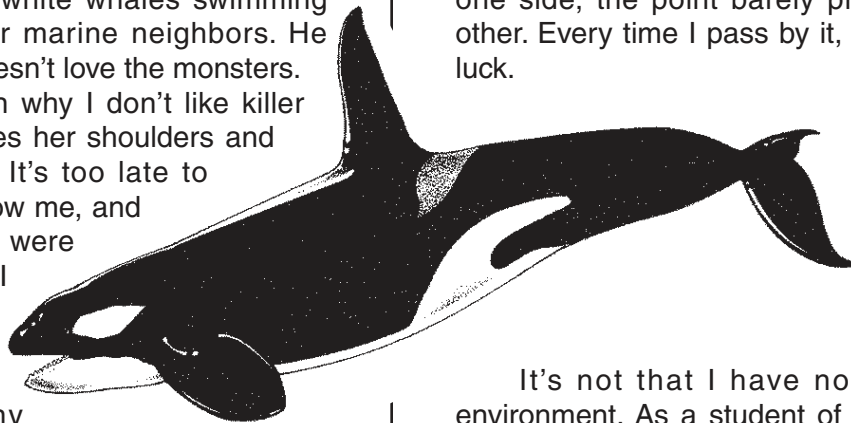
1 “I see you’ve got a poster of the enemy.” The loan officer sitting across the desk from me looks up at his framed poster of killer whales with a puzzled frown. All he sees is a painting with cuddly little black-and-white whales swimming peacefully among their marine neighbors. He can’t believe anyone doesn’t love the monsters.

2 As I start to explain why I don’t like killer whales, my wife hunches her shoulders and looks out the window. It’s too late to pretend she doesn’t know me, and now she’s wishing she were anywhere else. I wouldn’t blame her if she just got up and walked out. She’s seen this before, too many times. We don’t get the loan.

3 My wife cringes every time we enter an office or home featuring an image of killer whales. She cringes a lot. The hugely successful movie “Free Willy” starring Keiko the whale, and the hype surrounding it, have made killer whales the Bambis of the ‘90s, and it seems that nearly everyone thinks they’re as adorable as baby deer. Posters, paintings, T shirts and fuzzy, stuffed orcas are everywhere. But to me, orcas are “The Enemy,” the “tuxedo bandits” who have stolen thousands of dollars and countless days from me in the course of six years at sea. At least Keiko is safe in an Oregon jail. How wonderful it would be if several more pods (small groups of whales) could join him there.

As a commercial fisherman on a factory longliner in the Bering Sea, the Gulf of Alaska and near the Aleutian Islands, I have had plenty of opportunities to observe killer whales up close and personal. To those in my milieu, there is no sight more dreaded than their daggerlike dorsal

fin. This sentiment is expressed well by the stuffed toy orca hanging by the tail in the wheelhouse of the fishing boat on which I work. The handle of a paring knife juts at an angle from one side, the point barely protruding from the other. Every time I pass by it, I twist the knife for luck.



It’s not that I have no concern for the environment. As a student of architecture at the University of Oregon, I have focused on energy-efficient designs and use of natural materials for construction (solar heat, passive cooling, etc.). My wife and I share a Honda Civic VX that gets more than 40 miles per gallon, but I usually ride my bike if I don’t have much to carry. I vote for expensive legislation to protect salmon runs. I buy organic food as much as possible and recycle everything I can. I even cut off and recycle the steel bottoms of cardboard juice cans.

But while Coast Guard boardings can interrupt fishing operations for an hour or two, and storms can shut us down for a couple of days, a pod of killer whales can completely destroy the profitability of fishing a particular ground. There is no recourse. Killer whales can savage our lines at will. Unlike some whales, there appears to be plenty of killers roaming the Alaskan fisheries. I see them all the time. In the Bering Sea they’re about as rare as mosquitoes in a swamp.

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The truth is, killer whales are not cute. They are voracious killers of sea mammals including sea lions and the scourge of many fishermen. Sea lions are nearing extinction despite heavy restrictions on commercial and sport fishing near their rookeries. Orcas aren't subject to those restrictions, yet they are rarely blamed for declining stocks of seals and sea lions in the Aleutian Islands and Bering Sea.

Perhaps it wouldn't be so bad if we were competing with the whales for their natural food. Most of their prey is found within 20 fathoms of the surface, and they rarely if ever dive deeper than 100 fathoms. The turbot and sablefish we catch are bottom dwellers that live in depths from 250 to 450 fathoms. For fishing gear we use a single line, one to four miles long, with hooks baited with bits of squid. Anchors at either end of the line keep the gear on the seafloor, and small buoys mark where we haul the line. When whales strike, they eat nearly every fish off the line, leaving us with nothing but empty hooks. Our expenses stay the same, but all our product and profit are gone. Yet "Willy" is a hero, and we are scum.

It's tremendously frustrating to be hit by killer whales. Of course, if we don't have any gear in the water, we can go somewhere else. But if we do have gear soaking, we can let them eat our fish while we haul the gear on board, then move and hope they don't follow us. This is short term at best, and teaches "Willy" that fishing boats are his friends and will feed him when he drops by. Or we can drop the gear back into the water and wait for the pod to leave. This can take two or three days, and, by the time we haul the gear, most or all of the catch has been eaten by sand fleas or mud sharks on the sea bottom. And sometimes the whales come back anyway.

Frequently we'll see a single killer whale who disappears without eating anything. Within the next 24 hours the entire pod will join us, hoping for lunch. The boat I work on has a strict "do not feed the whales" policy. If we see whales approach while we're hauling the gear, we tie the line back on to the buoys and drop them into the sea. Once, seeing four killer whales leap completely out of the water in formation as they raced toward us, I just grabbed a knife and cut the line. Losing gear is a lesser evil than feeding whales.

I haven't seen the latest "Free Willy" movie, in which a fisherman is depicted as the criminal

who wants to kill the cuddly killer whale with a harpoon. But my sympathies are all with the fisherman. I kind of hope he gets his whale. I did, however, go to see Keiko in the Oregon Coast Aquarium. (My wife didn't think my argument that I've seen enough killer whales for both of us for life was good enough to pass up her opportunity to see one once.) It was actually kind of fun. For the first time I got to see a killer whale for less than \$1,000 worth of fish—and he was safe behind bars!

In the meantime, I'm trying to improve marital relations by not dumping all this on my wife quite so much. I'm even getting better in public. The last time my wife and I took our cat to the veterinary clinic, one of the receptionists was wearing a smock covered with images of the tuxedo bandits. I looked her in the eye and didn't say a word.

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1. "Pirates in Tuxedos" is specifically about a struggle between
  - A. freedom and dependence.
  - B. industry and nature.
  - C. environment and heredity.
  - D. dreams and reality.
  
2. Which detail supports the author's main idea?
  - A. Orcas ruin his fishing profits.
  - B. Killer whales travel in pods.
  - C. Orcas prey in the ocean depths.
  - D. Killer whales are intelligent.
  
3. As described in the article, killer whales are
  - A. dangerous to humans.
  - B. hated by fishermen.
  - C. ecologically beneficial.
  - D. gentle once trained.
  
4. In paragraphs 1 and 2, why does the author tell the anecdote about the loan officer's killer whale poster?
  - A. to show that loan officers love marine animals
  - B. to complain about his wife's lack of spirit and enthusiasm
  - C. to contrast his view of whales with the world's
  - D. to prove that fishermen are high-risk bank loan applicants
  
5. In paragraph 3, hype means
  - A. exaggerated publicity.
  - B. public outcry.
  - C. film awards.
  - D. hypnotic charm.
  
6. Though "Pirates in Tuxedos" is about one fisherman's thoughts on killer whales, it would be useful background reading for an oral report on
  - A. animal life in the Arctic Sea.
  - B. recycling in Alaska.
  - C. problems in the fishing industry.
  - D. regulations for commercial fishermen.

7. In paragraph 3, what does the author mean when he says, “How wonderful it would be if several more pods...could join him there”?
- A. He wants to bring marine life to the children of Oregon.
  - B. He wants to reduce the number of whales at sea.
  - C. He realizes that whales need companionship to survive.
  - D. He recognizes that whales in captivity are costly.
8. The author’s feelings toward killer whales are caused by
- A. media hype.
  - B. jealousy.
  - C. politics.
  - D. competition.
9. In the article, the author attempts to
- A. explain the differences between marine animals.
  - B. tell the story of his difficult and stormy career.
  - C. challenge a popular accepted opinion on orcas.
  - D. describe the pressures of life on board a boat.

10. The title metaphor, “Pirates in Tuxedos,” captures the killer whales’
- A. beauty and agility.
  - B. spirit and cleverness.
  - C. environmental impact.
  - D. character and appearance.

**DIRECTIONS FOR QUESTION 11: Write your response in the space provided on page 5 in your answer folder. DO NOT WRITE ANY RESPONSES IN THIS TEST BOOKLET.**

11. “Pirates in Tuxedos” describes stresses that the author experiences in his work.
- Give one example of stress on the job that the author describes.
  - How does this job stress spill over into his personal life?

Use information from the article to support your response.

**DIRECTIONS FOR QUESTION 12: Write your response in the space provided on page 6 in your answer folder. DO NOT WRITE ANY RESPONSES IN THIS TEST BOOKLET.**

12. In paragraph 12, the author decides not to say a word to the receptionist about his true feelings. Suppose he were to speak to her.
- What might he say?
  - Explain why he would say this.

Use information from the article to support your response.

**END OF PART 2**

You may check your work on this part only.  
DO NOT GO ON TO THE NEXT PAGE.





**DO NOT GO ON TO PART 3  
UNTIL YOU ARE TOLD TO DO SO.**



## LANGUAGE ARTS LITERACY DIRECTIONS – PART 3

This part of the test is located in your answer folder on pages 7-10.



## LANGUAGE ARTS LITERACY DIRECTIONS – PART 4

Today, you will take the second part of the Grade Eight Proficiency Assessment for Language Arts Literacy.

In this part of the test, you will read a narrative passage and then respond to the multiple-choice and open-ended questions that follow it. You may look back at the passage and make notes in your test booklet if you like, but you must write your answers in your answer folder.

You will have 40 minutes for this part of the test. If you finish this part before the time is called, close your test booklet and wait quietly until you receive further instructions.



## LANGUAGE ARTS LITERACY - PART 4

**DIRECTIONS FOR QUESTIONS 13–22:** Read the passage and record your answers to the multiple-choice questions in the area labeled “LANGUAGE ARTS LITERACY – PART 4, MULTIPLE-CHOICE SECTION” on page 11 in your answer folder.

**INTRODUCTION:** *In this story, Ken is upset because his family is going to move to another state. Ken takes his bicycle for a long ride in the mountains, where he learns a valuable lesson about life. As you read this story, you will find out what he learned.*

### A DIFFICULT CROSSING

BY MAUREEN CRANE WARTSKI

It was like riding a bicycle in a waterfall. Droplets of cold rain slid under Ken Rowles' slicker, dripped into his narrowed hazel eyes and down his neck. Ken really didn't care about the discomfort, though. What he *did* care about was that within a few days' time the Rowles family would be leaving Willsboro, Va., for good.

Boston, Mass., was where Ken's father had been transferred by his company. Ken's older brother, Gary, and their younger sister had accepted the move, but Ken couldn't think of a life away from the mountains he had known all his life. To be away from his cousins, his friends at the middle school, and the wildlife he loved—“No way,” Ken muttered.

This morning he'd begged his folks to let him stay in Willsboro with his uncle, aunt and cousins. Mom had looked unhappy, and Dad had cleared his throat, as he always did when he was serious. “Try to see this move as an adventure, son,” he'd said. “I know you'll like Boston if you just give it a chance.”

Frustrated and unhappy, Ken had decided to take his bicycle out for a long ride. But though he was an experienced cyclist, he found it hard going. It had been raining for days, and the road was slippery with mud that had washed down from the hills.

Gray mist shrouded the Blue Ridge Mountains and made it so hard to see that Ken didn't spot the broken-down car until he almost ran into it. A girl in a dripping wet yellow parka was checking the car's left tire, which was splayed out at a 45-degree angle.

She looked up when Ken pulled up beside her, and Ken recognized one of his brother's classmates at Willsboro High. Maria Santel was a transfer student from Chicago and had come to Willsboro in the middle of the year. Gary had

helped her catch up with her math, and later she had coached him in social studies.

“You're Gary's brother, aren't you?” Maria was asking. “Maybe you can help me fix this thing. I was driving along, then all of a sudden I couldn't steer.”

“I think you've lost a tie-rod end,” Ken told her. “You can't drive the car as it is. You'll need a tow.”

Maria's dark eyes were worried. “I was just driving Mom home from the doctor's—she's not feeling well. I hate to leave her while I go for help.”

“I'll go for you,” Ken offered. “I'll take a short cut home over Random Bridge. Don't worry, Maria—my dad'll take you home, and then you can call the garage.”

“That would be great! You folks around here are so kind.” Maria gave Ken a big smile that warmed him in spite of the rain. “When we first moved out here, Mom told me that the world's full of friends we haven't met. She was right.”

In spite of her brave words, she looked anxious. As he rode away, Ken wondered how Maria had felt when she came to Willsboro in the middle of the school year, which was similar to what he himself would be doing.

Ken's thoughts trailed off. He had reached the river, but the wooden bridge that spanned the

13 turbulent water had been partially washed away.

“Now what?” Ken muttered.

He could, of course, turn back and go another way, but that would mean wasting valuable time. Ken thought of Mrs. Santel and the disabled car and decided that he would have to cross the river somehow. The current was too swift for him to swim across, so he'd have to leave his bicycle and see if he could crawl over what remained of the bridge.

The wood was wet and slippery, and it took

GO ON TO THE NEXT PAGE. ➡

Ken some time to make his way across the bridge. Once on the other side, he started to jog down the road. But before he had covered a mile, he was forced to stop again. The rain had caused a part of the hillside to slide down onto the road, blocking it completely.

There was no safe way he could clamber over the debris, so he'd have to make his way around the landslide. Ken remembered a trail that he and his cousins had explored not long ago. It looped through the hills and valleys and would return to the road on the other side of the blockage.

Mist made the trail hard to locate, and even when he'd found it, Ken's troubles were far from over. A brook had overflowed its banks, and several times Ken sank up to his thighs in swirling water.

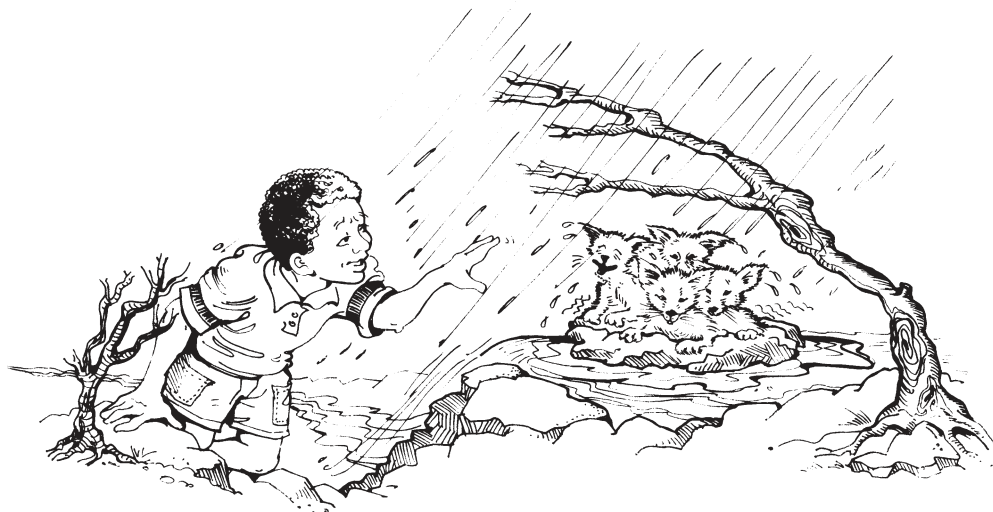
As he cautiously made his way along the trail,

time to waste.

It took half an hour of serious hiking to return to the road, where Ken flagged down a passing motorist with a CB. The man promised to relay news of the downed bridge and the landslide to the highway patrol. "And please tell them that there's a sick lady in a broken-down car at the other end of Random Bridge," Ken added. "They need help right away."

He himself ran the rest of the way home, stopped only long enough to change out of his wet clothes, and then left with his father and brother to help clear the road. By the time they arrived at the scene, police, DPW<sup>1</sup> workers, and volunteers had gathered to help in the clean-up effort, and a highway patrolman assured Ken that the Santels had been taken safely home.

Ken was glad that Maria and her mother



a sharp yip made him look up. Some distance away four fox cubs were perched on a stone which was surrounded by water. They looked thoroughly wet and miserable, and one of them turned toward Ken and yelped mournfully.

Ken couldn't help grinning at the expression on the cub's face. Then he sobered, remembering that when he had been here last, he and his cousins had seen a fox's den near the brook.

"So you lost your home," he said aloud. "I'm sorry, guys. But at least I can take you to higher ground."

The little foxes were too dazed to protest when Ken carried them to a safer, sheltered spot. "I hope the mother fox is O.K. and will find them," Ken worried, as he hurried along the trail. He wished that he could stay around and make sure that the fox cubs would be all right, but he had no

were all right, but he couldn't help worrying about the fox cubs he'd left back on the trail. So many things could happen to helpless, homeless animals.

"You O.K., son?" Ken looked up to see his father watching him. When Ken explained what had happened, his father set down his shovel.

"I think they've got the situation under control here," he said. "Let's go see what happened to your fox family."

The rain had stopped as Ken led the way back up the trail, and there were signs that the worst was over. Birds had begun to sing from the sodden trees by the time they reached the spot where he had left the fox cubs.

<sup>1</sup>Department of Public Works



But instead of four little foxes, there was only one. “Something’s happened to the others,” Ken groaned. “I knew I shouldn’t have left them.”

He broke off as a sleek, russet form slipped out of the wet underbrush. As Ken and his father watched, the mother fox picked up her cub by the scruff of the neck and carried him away.

“She must have taken the others to a new den,” Ken’s father said. “Don’t worry, son. Your foxes are together and safe.”

The foxes had found a new home. So had the Santels. Ken remembered Maria’s warm smile and what she’d said about strangers becoming friends.

He knew that he’d miss Willsboro terribly—no question about that. But he could come back and visit, couldn’t he? And meanwhile the Rowles family would be together. They would share adventures and meet people.

The thought brought a stir of warmth, even of excitement. Ken felt his heart lighten for the first time in weeks.

“If the clean-up crew won’t miss me, I’d better be getting home,” he told his dad. “The way I figure it, I’ve got a lot of packing to do.”



13. The reader learns that the worst of the storm is over when
- A. birds start singing.
  - B. the foxes find a home.
  - C. DPW workers arrive.
  - D. the Santels arrive home safely.

14. What causes Ken to leave the road and look for an old trail?
- A. a landslide
  - B. turbulent waters
  - C. fox cubs
  - D. heavy mist

15. Why doesn't Ken stay around to make sure the fox cubs will be all right after he moves them?
- A. He is afraid their mother will return soon.
  - B. He thinks it is more important to get help for Mrs. Santel.
  - C. He spots a passing motorist with a CB.
  - D. He wants to assist in clearing the road.

16. Which experience would BEST help you to understand Ken's dilemma?
- A. riding a bicycle in the rain
  - B. rescuing a stranded kitten
  - C. helping someone with car trouble
  - D. transferring to a new school

17. In paragraph 13, the author writes that Ken "had reached the river, but the wooden bridge that spanned the turbulent water had been partially washed away." What is the meaning of turbulent?
- A. calm
  - B. raging
  - C. slippery
  - D. misty

18. In the next to last paragraph, Ken felt his heart lighten for the first time in weeks. This means that Ken became more
- A. anxious.
  - B. brave.
  - C. cheerful.
  - D. worried.



19. Maria quotes her mom in saying that “The world is full of friends we haven’t met.” Her mother probably means that
- A. you can find new friends wherever you go.
  - B. there are many other people in the world.
  - C. some of your friends will be moving, too.
  - D. the world is overcrowded.
20. Which of the following contributes MOST to the suspense of the story?
- A. Ken’s fear of traveling in a storm
  - B. Maria’s broken tie-rod
  - C. the darkness of the night
  - D. the mountains and weather
21. Ken is in greatest danger when he
- A. encounters four foxes.
  - B. swims in the swift current.
  - C. rides his bicycle in a waterfall.
  - D. crawls over the slippery remains of a bridge.

22. At what point in the story does Ken accept the move to Boston?
- A. When he realizes the foxes and the Santels have found new homes.
  - B. When he realizes the foxes have been stranded and need his help.
  - C. When he decides to help the Santels and the foxes.
  - D. When he learns of his father’s transfer to Boston.

**DIRECTIONS FOR QUESTION 23: Write your response in the space provided on page 12 in your answer folder. DO NOT WRITE ANY RESPONSES IN THIS TEST BOOKLET.**

23. Ken’s older brother and younger sister are able to accept the family’s move to Boston, but Ken is distressed with the idea.
- Give TWO or more reasons WHY a middle-school student might not want to move.
  - Describe HOW Ken is able to resolve this problem.

Use information from the story to support your response.





**DIRECTIONS FOR QUESTION 24:** Write your response in the space provided on page 13 in your answer folder. **DO NOT WRITE ANY RESPONSES IN THIS TEST BOOKLET.**

24. Before the story begins, Mr. Rowles is talking with the family about their upcoming move to Boston. If you were Ken,
- what questions would you ask about the move?
  - how might the answers change your mind about the move?

Use information from the story to support your response.

**END OF PART 4**

You may check your work on this part only.  
**DO NOT GO ON TO THE NEXT PAGE.**



**DO NOT GO ON TO PART 5  
UNTIL YOU ARE TOLD TO DO SO.**



## LANGUAGE ARTS LITERACY DIRECTIONS – PART 5

In this part of the test, you will complete a writing task. You will have an opportunity to demonstrate how well you can organize and express your ideas in written text. You have received a Writer's Checklist of important points to remember as you write. Educators who read your writing will consider these important points when they read and score your writing.

You will have 45 minutes to complete the writing task. Take a few minutes to think about the task and to plan what you want to say before you begin to write. You may use the prewriting/planning space in your test booklet to plan your text, but your prewriting will not be scored. Only your writing on pages 14-17 in your answer folder will be scored. Do your best to make your writing clear and well-organized. Keep your audience and purpose in mind as you write and use your checklist.

You must use a No. 2 pencil. You may either print or write your final copy. You may not use a dictionary or any other reference materials during the test. However, you may use the Writer's Checklist. If you finish before the time is called, review what you have written using the Writer's Checklist to read critically and improve what you have written. Then, close your test booklet and wait quietly until you receive further instructions.



## LANGUAGE ARTS LITERACY - PART 5

### WRITING SITUATION

This year your school's soccer team won the state championship. When your team won, students ripped up pieces of the soccer field and cut the goal nets to keep as souvenirs of the game. As a result, the school principal has announced that any money raised this year by all the school clubs will go towards repairing the playing field and replacing the soccer equipment.

The principal's decision has created a controversy in your school. You decide to write to the editor of your school newspaper about this decision.

### WRITING TASK B

Write a letter to the editor of your school newspaper. Explain your views on the principal's decision requiring that money raised by school clubs be used to repair the field and replace soccer equipment. Use examples, facts, and other evidence to support your point of view.

## PREWRITING/PLANNING SPACE

When you finish your planning, turn to page 14 in your answer folder.



## PREWRITING/PLANNING SPACE (continued)

### END OF PART 5

Be sure to write your draft on pages 14-17 in your answer folder. You may check your work on this part only.





## DIRECTIONS FOR MATHEMATICS

The Mathematics section of the Grade Eight Proficiency Assessment is made up of three parts consisting of multiple-choice questions and open-ended questions.

Work as rapidly as you can without sacrificing accuracy. Do not spend too much time puzzling over a question that seems too difficult for you. Answer the easier questions first; then return to the harder ones. Try to answer every question, even if you have to guess.

Where necessary, you may use scratch paper and blank spaces in the test booklet for your work. Do not use the margins or back of the answer folder to do scratchwork.

**YOU MUST RECORD ALL OF YOUR ANSWERS IN THE SEPARATE ANSWER FOLDER.** No credit will be given for anything written in this test booklet. Your responses must be in English in order to be scored.

For multiple-choice questions, mark only one answer for each question by filling in the corresponding circle on the answer folder. **MAKE SURE THAT EACH MARK IS HEAVY AND DARK AND COMPLETELY FILLS THE CIRCLE.** If you change an answer, be sure to erase your first choice completely. Incomplete erasures may be read as intended answers.

Respond **FULLY** to the open-ended questions in the area provided in the answer folder. Specific directions with each question will refer you to the page in your answer folder where your response is to be written. For each of these questions, provide enough explanation so that the scorer can understand your solution. You will be graded on the correctness of your methods as well as the accuracy of your answer.

In addition to a ruler and geometric shapes, the Mathematics Reference Sheet provides formulas and other information you may find useful. You may use the information on the reference sheet and a calculator to help solve problems on the test.

You will have 1 hour and 45 minutes to complete the three parts of the Mathematics test. You will be given short breaks after each 35-minute part.



# MATHEMATICS - PART 1

**DIRECTIONS FOR QUESTIONS 1 THROUGH 12:** Each of the questions or incomplete statements below is followed by four suggested answers or completions. Select the one that is best in each case, and fill in the corresponding lettered space on page 18 in your answer folder with a heavy, dark mark so that you cannot see the letter. Unless you are told to do so in the question, do NOT include sales tax in your answer to questions involving purchases.

1. The nutrition label on a box of cookies states that there are 14 servings in the box and that one serving contains 6.5 grams of fat. Joe ate about one-half of the cookies in the box. Which is the best estimate of the number of grams of fat he ate?

A. 7 g  
B. 45 g  
C. 80 g  
D. 100 g

2. The police are looking for a helicopter that took off from an airfield in central New Jersey. They know it only had enough fuel to travel 50 miles. What is the shape of the region they should search?

A. a square  
B. a rectangle  
C. a triangle  
D. a circle

3. The Atco Company randomly selected 1,000 bills being sent out by its billing department and found errors on 3 bills. Based on this information, how many of the 24,000 bills sent out each month can be expected to be incorrect?

A. 8  
B. 72  
C. 720  
D. 8,000

4. Which of the following equations gives the rule for finding the numbers in the column on the right?

$x$	$y$
1	7
2	11
3	15

A.  $y = x + 4$   
B.  $y = 2x + 5$   
C.  $y = x + 6$   
D.  $y = 4x + 3$

GO ON TO THE NEXT PAGE.



5. Pentomino K on your Mathematics Reference Sheet is the same size and shape as the figures below. You may wish to use Pentomino K as an aid in answering the following question.

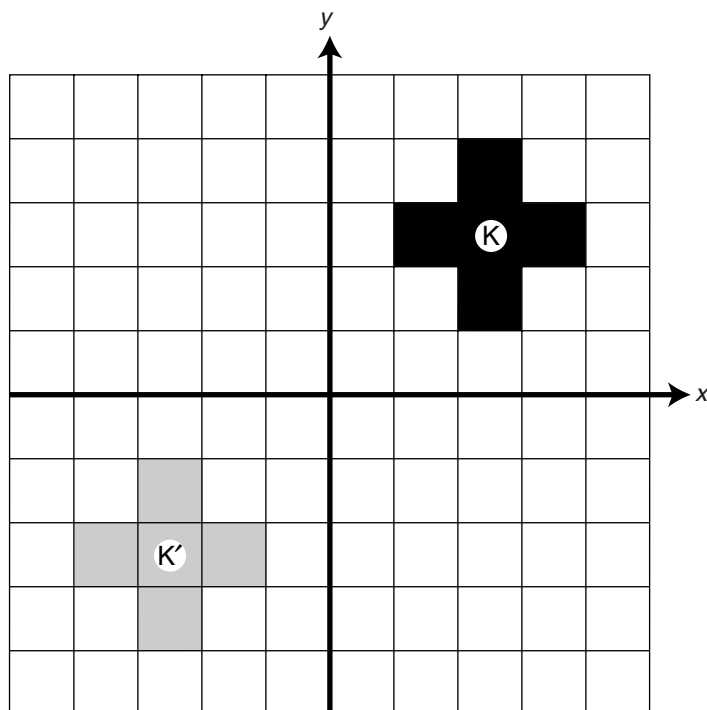


Figure  $K'$  is the result of a sequence of transformations of Figure K. Which of the following does NOT describe a correct possible sequence of transformations?

- A. a translation of Figure K down 5 units, then a translation to the left 5 units
- B. a reflection of Figure K across the  $x$ -axis, then a translation to the left 5 units
- C. a reflection of Figure K across the  $y$ -axis, then a translation down 4 units
- D. a reflection of Figure K across the  $x$ -axis, then a reflection across the  $y$ -axis





6. The salaries of the employees at Dean's Print Shop are \$24,000, \$37,000, \$12,000, \$17,000, \$26,000, \$40,000, and \$19,000.

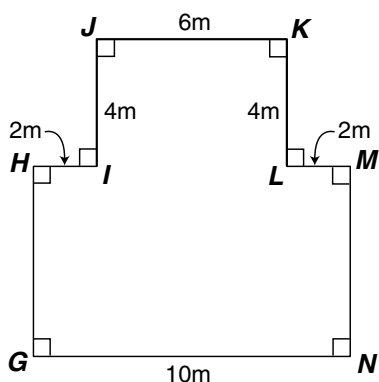
What is the median salary of the employees?

- A. \$25,000
- B. \$24,000
- C. \$17,000
- D. \$12,000

8. A computer manufacturer planning to produce many computers can choose to use Intel computer chips at \$900 each or Motorola computer chips at \$374 each. How much money would that manufacturer save on an order of 20,000 central-processor chips by choosing the Motorola chip rather than the Intel chip?

- A. \$18,000,000
- B. \$10,520,000
- C. \$ 7,480,000
- D. \$ 336,600

7. The perimeter of this figure is 40 meters.



What is the measure of  $\overline{HG}$ ?

- A. 6 m
- B. 8 m
- C. 10 m
- D. 12 m

9. For a convex polygon with a small number of sides, like a rectangle or a hexagon, it's easy to draw the figure and count its diagonals. Suppose the convex polygon has many sides. It is possible to find how many diagonals it has without drawing the figure and counting its diagonals. The following formula gives that information:

$$\text{Number of Diagonals} = \frac{n^2 - 3n}{2}$$

where  $n$  = number of sides

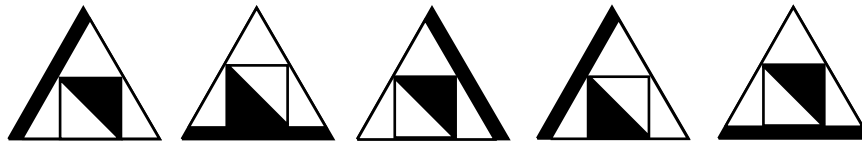
Using the formula above, find the number of diagonals for a convex polygon with 107 sides. Which of the following is the number of diagonals for that polygon?

- A. 11,128
- B. 5,564
- C. 106
- D. 54

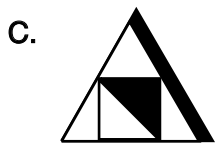
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10. These figures form a pattern.



Which of the figures below BEST continues the pattern?



11. Allison was born on her mother's 28th birthday. Which expression can be used to find Allison's mother's age when Allison is  $n$  years old?

- A.  $28 + n$
- B.  $28 - n$
- C.  $28 \times n$
- D.  $28 \div n$

12. Steve's parents told him he could order \$250 worth of school clothes from a certain catalog. So far, his order includes 3 pairs of slacks at \$21.99 each and a jacket for \$125.99. What is the greatest number of shirts that he can order if they cost \$14.99 each?

- A. 2
- B. 3
- C. 4
- D. 6

GO ON TO THE NEXT PAGE. ➡



**DIRECTIONS FOR QUESTION 13:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You will be graded on the correctness of your method as well as the accuracy of your answer. Write your answer on page 19 in your answer folder.

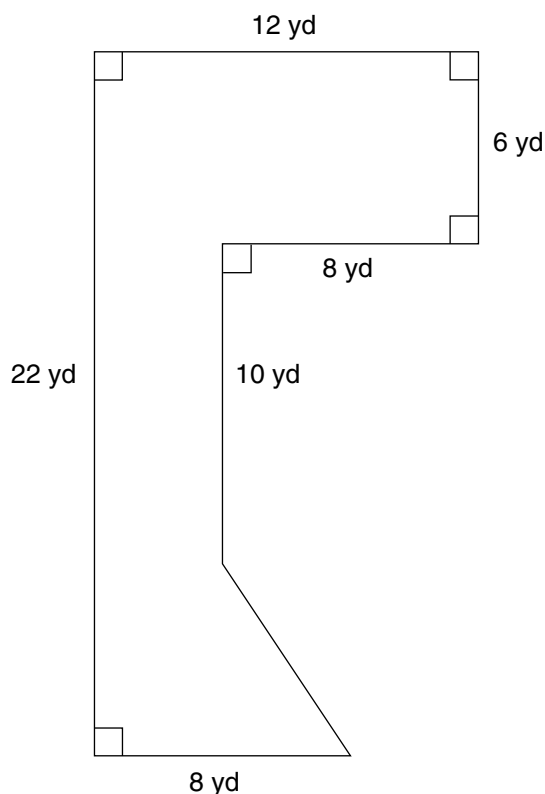
13. On the number line in your answer folder, plot points for the following numbers.

$$\frac{4}{5}, 0.6$$

- Label each point.
- Name two different rational numbers that are greater than 0.6 and less than  $\frac{4}{5}$ . (Write one of your numbers in fractional form and write the other number in decimal form.)
- Explain how you know that each of your numbers is greater than 0.6 and less than  $\frac{4}{5}$ .

**DIRECTIONS FOR QUESTION 14:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You will be graded on the correctness of your method as well as the accuracy of your answer. Write your answer on page 20 in your answer folder.

14. The floor of an entranceway and corridor in an office building is to be covered with vinyl flooring. Find the number of square yards of flooring that will be needed. Use the diagram provided in your answer folder to show how you found the area of the floor. Show all your work.



**END OF PART 1**

You may check your work on this part only. DO NOT GO ON TO THE NEXT PAGE.



## MATHEMATICS - PART 2

**DIRECTIONS FOR QUESTIONS 15 THROUGH 25:** Each of the questions or incomplete statements below is followed by four suggested answers or completions. Select the one that is best in each case, and fill in the corresponding lettered space on page 21 in your answer folder with a heavy, dark mark so that you cannot see the letter. Unless you are told to do so in the question, do NOT include sales tax in your answer to questions involving purchases.

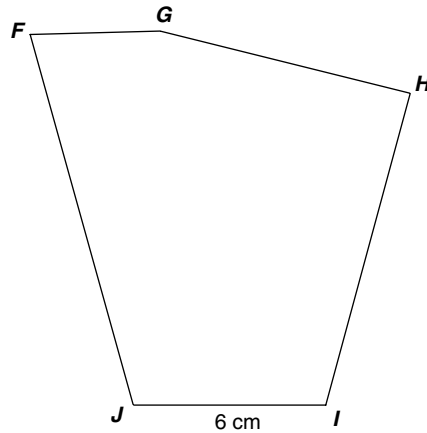
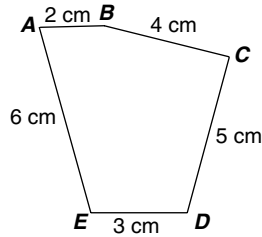
15. Point  $P$  has the coordinates  $(-1, 2)$ . What are the coordinates of its image point if it is translated 4 units to the left and then reflected in the  $x$ -axis?

A.  $(3, 2)$   
B.  $(3, -2)$   
C.  $(-5, 2)$   
D.  $(-5, -2)$

16. City bus #14 arrives at Grand Street every 10 minutes, starting at 6:00 a.m. The dispatcher is setting the schedule for an additional bus that will arrive at Grand Street every 20 minutes. The dispatcher does not want the two busses to arrive at Grand Street at the same time. Which of these starting times will be best for the additional bus?

A. 6:00 a.m.  
B. 6:05 a.m.  
C. 6:10 a.m.  
D. 6:30 a.m.

17. Figure  $ABCDE$  is similar to figure  $FGHIJ$ .



What is the measure of  $\overline{GH}$ ?

- A. 4 cm
- B. 6 cm
- C. 8 cm
- D. 10 cm

18. A number cube has sides numbered 1 to 6. If the cube is rolled once, what is the probability that the number rolled is a factor of 6?

- A.  $\frac{1}{6}$
- B.  $\frac{1}{3}$
- C.  $\frac{2}{3}$
- D.  $\frac{5}{6}$

19. A regular human hand contains 27 different bones. There are 206 bones altogether in the whole human body. Approximately what percent of the bones in a whole human body are in one hand?

- A. about 1.3%
- B. about 7.6%
- C. about 13%
- D. about 26%



20. Janet works 38 hours per week and earns \$11.82 per hour. Which is the best estimate of her gross pay per year?

A. \$440  
B. \$2,400  
C. \$24,000  
D. \$44,000

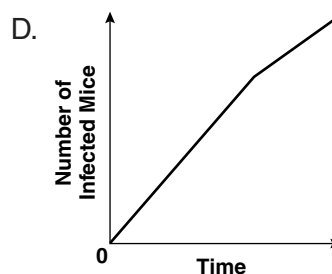
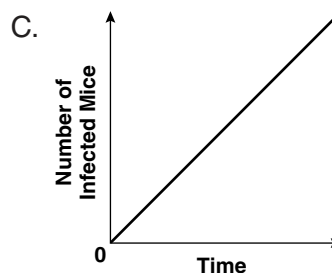
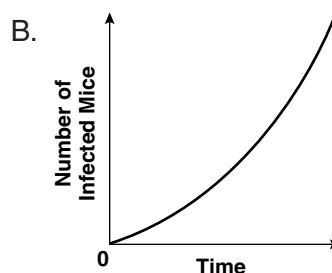
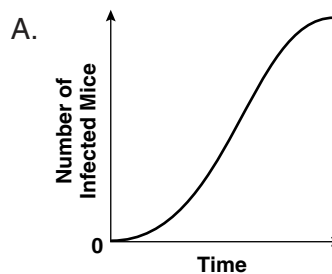
21. Which list shows elevations above and below sea level in order from the lowest elevation to the highest?

A. - 400 ft, - 20 ft, 350 ft, 1,200 ft  
B. - 20 ft, - 400 ft, 350 ft, 1,200 ft  
C. - 20 ft, 350 ft, - 400 ft, 1,200 ft  
D. 1,200 ft, 350 ft, - 400 ft, - 20 ft

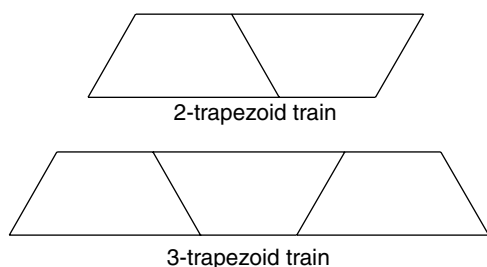
22. The chance of rain Saturday is 30%. The chance of rain Sunday is 60%. What is the probability that it will rain both days?

A. 18%  
B. 30%  
C. 60%  
D. 90%

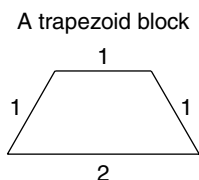
23. A bacterial infection in a colony of mice began slowly and then increased exponentially. After a few weeks, the rate of infection slowed down. Which graph best shows the relationship between time and the number of infected mice?



24. Marcia is making trapezoid trains with her trapezoid blocks.



Three sides of a trapezoid block measure 1 unit each. The fourth side measures 2 units.



What is the perimeter of a trapezoid train made up of 10 trapezoid blocks?

- A. 22 units
- B. 30 units
- C. 32 units
- D. 50 units

25. The winning distances for the Olympic shot put event for the past 100 years are given below:

1896 - 36 ft $9\frac{1}{4}$ in.	1956 - 60 ft 11 in.
1900 - 46 ft $3\frac{1}{8}$ in.	1960 - 64 ft $6\frac{3}{4}$ in.
1904 - 48 ft 7 in.	1964 - 68 ft $8\frac{1}{2}$ in.
1908 - 46 ft $7\frac{1}{2}$ in.	1968 - 67 ft $4\frac{3}{4}$ in.
1912 - 50 ft 4 in.	1972 - 69 ft 6 in.
1920 - 48 ft $7\frac{1}{8}$ in.	1976 - 69 ft $6\frac{7}{10}$ in.
1924 - 49 ft $2\frac{1}{2}$ in.	1980 - 70 ft $\frac{1}{2}$ in.
1928 - 52 ft $1\frac{3}{16}$ in.	1984 - 69 ft 9 in.
1932 - 52 ft $6\frac{3}{16}$ in.	1988 - 73 ft $8\frac{3}{4}$ in.
1936 - 53 ft $1\frac{3}{4}$ in.	1992 - 71 ft $2\frac{1}{2}$ in.
1948 - 56 ft 2 in.	1996 - 70 ft 11 in.
1952 - 57 ft $1\frac{1}{2}$ in.	

Which statement best summarizes the data?

- A. The winning distances increased by more than 70 feet over 100 years.
- B. The winning distance in one Olympics was always greater than the winning distance of the previous Olympics.
- C. The records show one result for every four years, starting in 1896.
- D. The winning distances varied but generally increased over time.



**DIRECTIONS FOR QUESTION 26:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You will be graded on the correctness of your method as well as the accuracy of your answer. Write your answer on page 22 in your answer folder.

26. At 9:00 a.m. on the super-sale day at Clothing City, Amy saw the coat she wants priced at \$65. Amy has only \$46. Every hour the price on coats will be reduced 10% from the previous hour's price.
- At what time will Amy be able to buy the coat for \$46 or less, provided the coat is still available?
  - Explain in detail how you found your answer.



**DIRECTIONS FOR QUESTION 27:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You will be graded on the correctness of your method as well as the accuracy of your answer. Write your answer on page 23 in your answer folder.

27. This computer spreadsheet gives information about the pens Ms. Nunez sells in her store.

A	B	C	D	E	F
Type of pen	No. bought	Unit cost	Selling price	No. sold	Amt. received
Economy	500	\$ 0.12	\$ 0.36	270	\$ 97.20
Better	350	\$ 0.28	\$ 0.84	191	\$ 160.44
Best	175	\$ 2.25	\$ 6.75	15	\$ 101.25

When Ms. Nunez changes the numbers in columns C and E, the numbers in columns D and F change automatically.

- Using words or formulas, explain how the *Selling price* (column D) is calculated using the *Unit cost* (column C).
- Using words or formulas, explain how the *Amt. received* (column F) is calculated from the numbers in the other columns.
- Select one type of pen from column A in the spreadsheet above. Write new numbers for that row to show what would happen to the *Selling price* (column D) and the *Amt. received* (column F) if the *Unit cost* (column C) is twice as much as the one shown.
- Explain in words what happened to the *Selling price* (column D) and the *Amt. received* (column F) when the unit cost was doubled.

**END OF PART 2**

You may check your work on this part only.  
DO NOT GO ON TO THE NEXT PAGE.



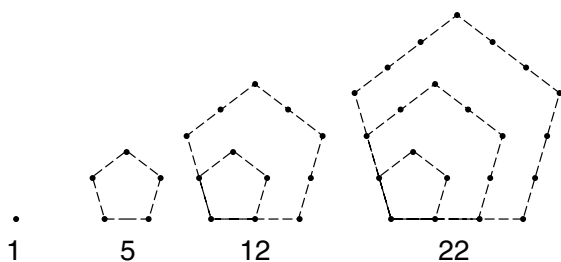
# MATHEMATICS - PART 3

**DIRECTIONS FOR QUESTIONS 28 THROUGH 38:** Each of the questions or incomplete statements below is followed by four suggested answers or completions. Select the one that is best in each case, and fill in the corresponding lettered space on page 24 in your answer folder with a heavy, dark mark so that you cannot see the letter. Unless you are told to do so in the question, do NOT include sales tax in your answer to questions involving purchases.

28. Which of these numbers is the greatest prime number less than 70?

A. 69  
B. 67  
C. 59  
D. 57

29. The first four pentagonal numbers are indicated below. The numbers are calculated by counting the dots. Based upon the pattern indicated, what is the **sixth** pentagonal number?



A. 35  
B. 51  
C. 70  
D. 92

30. In 1991, an American, Ann Trason, set a world record by running 100 km in

Hours	Minutes	Seconds
7	50	09

Which is the best estimate of her average speed?

A. 12 km per hr  
B. 14 km per hr  
C. 16 km per hr  
D. 18 km per hr

31. Erin calculated the mean of 5 numbers to be 38. Then she found that she had made an error and had written 40 for one of the numbers when she should have written 30. What is the mean of the correct 5 numbers?

A. 28  
B. 30  
C. 36  
D. 40

32. A computer network is to be set up so that

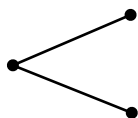
- the supervisor can communicate with every terminal, and
- each worker can communicate with the supervisor and exactly two co-workers.

Which network meets these requirements?

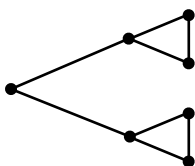
A.



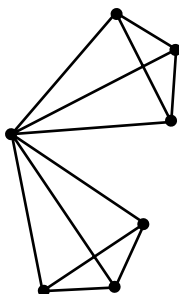
B.



C.



D.



33. These two boxes have the same volume.

Box A

Height: 2 in., Width: 3 in., Length: 6 in.

Box B

Height: 3 in., Width: 4 in., Length: ?

What is the length of Box B?

- A. 2 in.
- B. 3 in.
- C. 4 in.
- D. 9 in.

34. A wooden box with 8 video cassettes inside weighs 4.2 kilograms. The box weighs 0.6 kg when it is empty. Using  $w$  to represent the weight of one video cassette, which of the following describes this situation?

- A.  $8w = 4.2$
- B.  $8w + 0.6 = 4.2$
- C.  $8w - 0.6 = 4.2$
- D.  $8(w + 0.6) = 4.2$

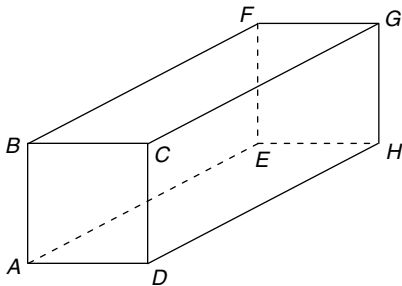


35. The diameter of a circular opening is  $2\frac{1}{4}$  inches.

Which of the following is the diameter of the largest pipe that will fit in that opening?

- A.  $2\frac{3}{16}$  inches
- B.  $2\frac{1}{8}$  inches
- C.  $2\frac{1}{16}$  inches
- D.  $2\frac{1}{32}$  inches

36. The figure below is a rectangular prism. Which of the following edges is perpendicular to face  $BFGC$ ?



- A.  $\overline{AB}$
- B.  $\overline{AE}$
- C.  $\overline{DH}$
- D.  $\overline{BF}$

37. It takes 20 minutes per pound to cook a turkey. Mona's turkey weighs  $7\frac{1}{2}$  pounds. Peter's turkey weighs 9 pounds. How much longer will it take to cook Peter's turkey?

- A. 20 minutes
- B. 30 minutes
- C. 40 minutes
- D.  $1\frac{1}{2}$  hours

38. For the school festival, Polly wants to make a snack mixture with 2 parts of dried fruit to every 3 parts of assorted nuts. How much dried fruit will she need to make 30 pounds of the mixture?

- A. 9 pounds
- B. 12 pounds
- C. 15 pounds
- D. 20 pounds

**DIRECTIONS FOR QUESTION 39:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You will be graded on the correctness of your method as well as the accuracy of your answer. Write your answer on page 25 in your answer folder.

39. This table shows the number of employees at StarDex Corporation by department.

Department	Number of Employees
Purchasing	2
Billing	6
Credit	3
Sales	12
Inventory	3
Manufacturing	22
Bookkeeping	2

Every employee at StarDex put his or her name on an index card. At the company picnic one card will be drawn at random. The person whose name is drawn will win the grand prize.

Bob, who works in Credit, is discussing the contest with Sandra, who works in Sales.

Bob says, "I have a better chance of winning than you because there are fewer people in my department."

Sandra says, "No, Bob, we both have the same chance of winning."

- Is Bob correct that he is more likely to win than Sandra? Explain your answer.

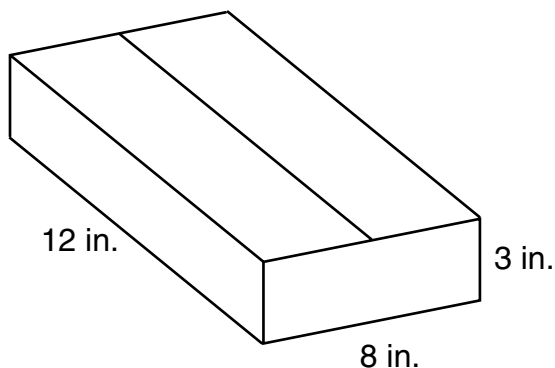
Then Sandra says, "However, I think it is 4 times more likely that someone from Credit will win than someone from Sales."

- Is Sandra correct that it is 4 times more likely that someone from Credit will win than someone from Sales? Explain your answer.



**DIRECTIONS FOR QUESTION 40:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You will be graded on the correctness of your method as well as the accuracy of your answer. Write your answer on page 26 in your answer folder.

40. The Packing Company wants to lower the cost of its boxes by reducing the surface area while keeping the volume the same. One of the boxes is shown below.



- Find the volume of this box. Show how you found your answer.
- Find the surface area of this box. Show how you found your answer.
- Find the dimensions of a box that has the same volume but less surface area. Show how you found your answer.

**END OF PART 3**

You may check your work on this part only.





## DIRECTIONS FOR SCIENCE

The Science section of the Grade Eight Proficiency Assessment is made up of three parts, consisting of multiple-choice questions and open-ended questions.

Work as rapidly as you can without sacrificing accuracy. Do not spend too much time puzzling over a question. Answer the easier questions first; then return to the harder ones.

Where necessary, you may use blank spaces in the test booklet for your work.

**YOU MUST RECORD ALL OF YOUR ANSWERS IN THE SEPARATE ANSWER FOLDER.** No credit will be given for anything written in this test booklet. Your response must be in English in order to be scored.

For multiple-choice questions, mark only one answer for each question by filling in the corresponding circle on the answer folder. **MAKE SURE THAT EACH MARK IS HEAVY AND DARK AND COMPLETELY FILLS THE CIRCLE.** If you change an answer, be sure to erase your first choice completely. Incomplete erasures may be read as intended answers.

Respond fully to the open-ended questions in the area provided in the answer folder. Specific directions with each question will refer you to the page in your answer folder where your response is to be written. For each of these questions, provide enough explanation so that the scorer can understand your solution. When asked to explain an answer, you may use words, tables, diagrams, or pictures.

## SCIENCE - PART 1

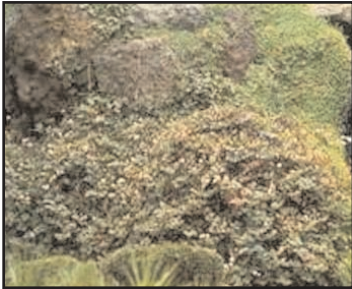
**DIRECTIONS FOR QUESTIONS 1 THROUGH 15:** For each of the questions or incomplete statements below, choose the best of the answer choices given, and fill in the corresponding circle on page 27 of your answer folder.



Glacier Retreating



Barren Land



Lichens/Mosses



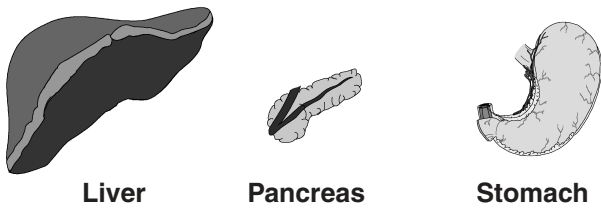
Scrub Growth



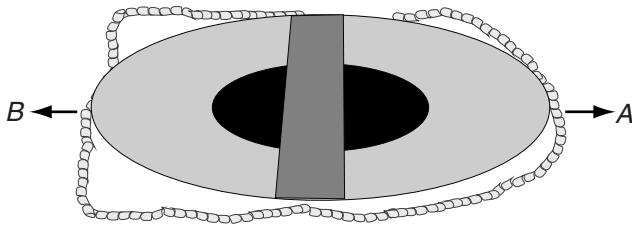
Trees

1. Using the pictures shown above, arrange the stages of ecosystem succession in their proper sequence.
- A. Glacier, Barren Land, Mosses, Scrub Growth, Trees
  - B. Barren Land, Glacier, Mosses, Scrub Growth, Trees
  - C. Mosses, Glacier, Barren Land, Scrub Growth, Trees
  - D. Barren Land, Glacier, Scrub Growth, Mosses, Trees



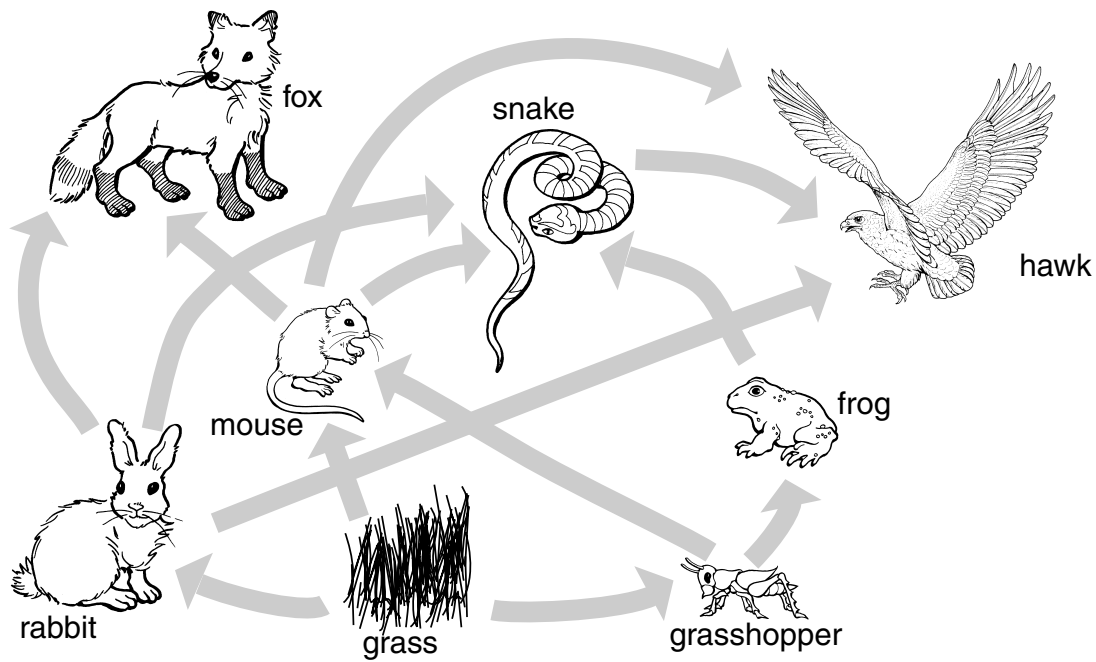


2. The objects above function together as components of which of the following?
- A. a web
  - B. a system
  - C. tissue
  - D. an organ



3. A raft is floating on a lake. When Ali dives out of the raft in the direction indicated by arrow *A*, the raft moves in the direction indicated by arrow *B*. Which principle does this illustrate?
- A. Force equals mass times acceleration.
  - B. Energy is neither created nor destroyed; it changes form.
  - C. For every action there is an equal but opposite reaction.
  - D. An object in motion will move at a constant speed in a straight line unless acted upon by an outside force.

4. If the Moon did not rotate at the same rate that it revolved, which of the following would be true?
- A. There would be no more tides.
  - B. We would no longer see eclipses.
  - C. The cycle of the Moon's phases would repeat faster.
  - D. We would be able to see all sides of the Moon.



5. The food web shown above represents the flow of energy to all participants in an ecosystem. Which participant, if eliminated, would destroy the entire food web?
- A. rabbit
  - B. grass
  - C. hawk
  - D. grasshopper



6. A student tests an unknown substance for the following properties and finds the results listed in the table below:

<i>Property</i>	<i>Results</i>
Ductile	Ductile
Malleable	Malleable
Lustre	Shiny
Melting Point	High
Density	13.6 g/cm <sup>3</sup>
Heat Conduction	Good

Given this information, which of the following is the most reasonable conclusion for the student to reach?

- A. The substance is a metallic solid.
- B. The substance is a nonmetallic solid.
- C. The substance is a gas.
- D. The substance is a liquid.

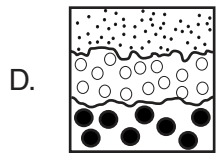
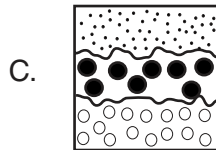
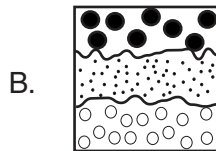
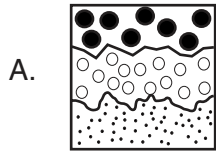
- 
7. A battery-powered watch with a minute hand and an hour hand tells time because of the transformation of one energy form to another. Which of the sequences below illustrates this transformation?

- A. chemical-electrical-mechanical
- B. chemical-mechanical-electrical
- C. mechanical-chemical-electrical
- D. electrical-chemical-mechanical

8. A chef pours a cup of rice into a pot of boiling water and observes the rice swirling around in the pot. Which of the following explains the cause of this action?

- A. Heat transfer by radiation makes the rice vibrate.
- B. The rice is carried along by conduction.
- C. The chef stirred the pot before the rice was added.
- D. The rice is carried along by convection currents.

9. Which of the following illustrations shows the most common arrangement of sediments as a stream slows down over time?



10. Which of the following is an example of refraction?

- A. A man combs his hair while looking in a mirror.
- B. A woman feels warm wearing black on a bright day.
- C. A man thinks a fish in water is closer than it really is.
- D. A room with brown walls becomes brighter when it is painted white.

11. The environment of a particular species of rabbit is becoming colder over time. Rabbits with which of the following traits will best be able to survive and reproduce?

- A. shorter legs
- B. thicker fur
- C. longer ears
- D. longer whiskers



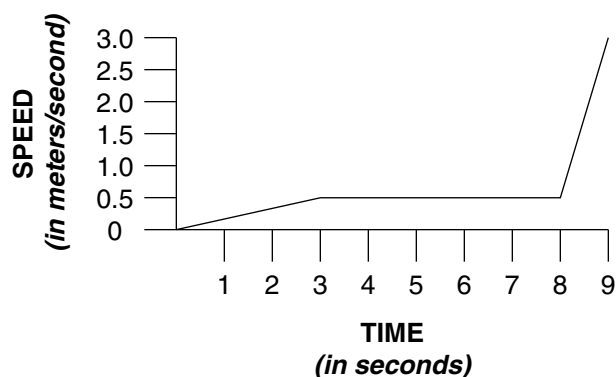
12. Which of the following best explains how minerals get into stream water?

- A. Rainwater dissolves minerals out of the rocks and soil during runoff.
- B. Rainwater that is high in minerals from the atmosphere falls into the stream.
- C. The stream water absorbs minerals from the plants growing in it and along its banks.
- D. When water evaporates from the ocean, it takes minerals with it and redeposits them as rainwater into the stream.

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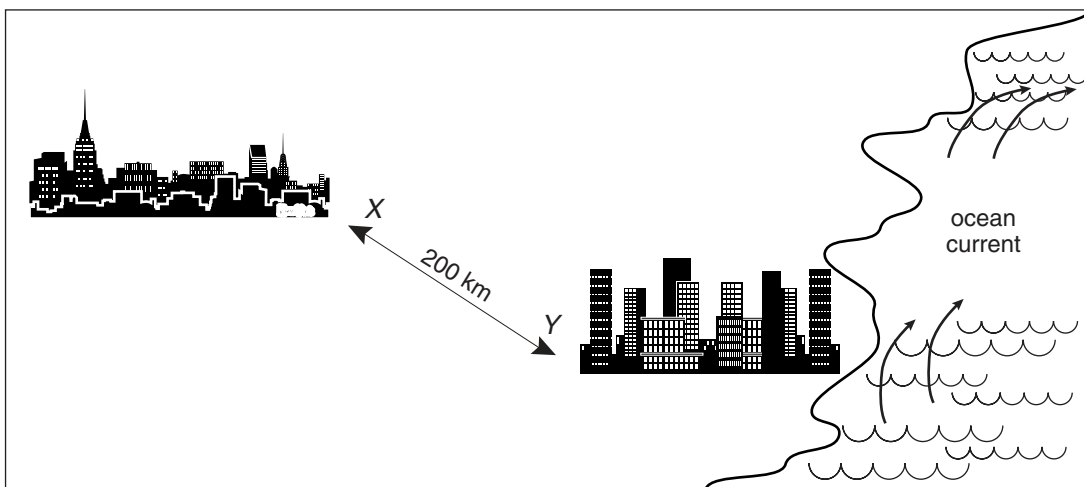
13. Paramecia reproduce both sexually and asexually. One way to see if a given paramecium is the product of sexual or asexual reproduction is to

- A. see whether its genes are identical to those of its parent.
- B. check for traits that are beneficial to its survival.
- C. check for traits that are not beneficial to its survival.
- D. test it for acquired characteristics.



14. The graph shown above provides information about the motion of a bicycle. When is the bicycle's acceleration the greatest?

- A. at 0 seconds only
- B. from 0 – 3 seconds
- C. from 3 – 8 seconds
- D. from 8 – 9 seconds



15. The average temperature of City X is hotter than the average temperature of City Y during the summer, but colder than City Y in the winter. Using the map shown above, what best explains the milder weather in City Y?
- A. Warm winds from the land keep the temperature mild all year long.
  - B. The ocean current warms the air in winter and keeps it cooler in summer.
  - C. The ocean always floods City Y, keeping it near 75°F all year.
  - D. City Y is to the south of City X.



**DIRECTIONS FOR QUESTION 16:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You may use words, tables, diagrams, or drawings. Write your answer on page 28 of your answer folder.

16. A classmate measures the temperature of pond water and the soil that surrounds it every hour for a period of five hours on a sunny day. The measurements are shown in the chart below.

Time (Hours)	0	1	2	3	4	5
Water Temperature (°C)	16	17	18	19	21	23
Soil Temperature (°C)	16	16	19	21	23	26

The next day, at a nearby lake that has a shore of sandstone, you measure the temperature of the sandstone and water at 7 a.m. You find that both have a temperature of 13° C.

If it is sunny all day:

- What do the results of the experiment at the pond predict about the temperature of the sandstone and the lake water at noon?
- Explain your answer.
- Explain why your prediction, based on the data, might be incorrect.







**SCIENCE - PART 2**

**DIRECTIONS FOR QUESTIONS 17 THROUGH 31:** For each of the questions or incomplete statements below, choose the best of the answer choices given, and fill in the corresponding circle on page 29 of your answer folder.

17. The greatest differences in structure occur in organisms of different

A. orders.  
B. phyla.  
C. species.  
D. families.

- 
18. A 1,000-year-old stone statue, in perfect condition, was moved from the desert to a park in New Jersey. After one year, its surface began to crumble. What is the most likely cause of the crumbling?

A. The statue was very old and the stone started to decay.  
B. The statue was damaged by rain water.  
C. The statue was damaged during the move.  
D. The statue was damaged by sunlight.

19. During a space walk, an astronaut lets go of a tool, causing it to float away and bounce off the side of the space shuttle. Why does the astronaut see the tool hit the shuttle but not hear it?

A. Light waves cannot travel through a vacuum. However, sound waves can.  
B. Sound waves cannot travel through a vacuum. However, light waves can.  
C. Neither sound nor light waves can travel through a vacuum.  
D. Both sound and light waves can travel through a vacuum.

- 
20. A scale has been created that measures the magnitude of total energy released in an earthquake. This scale is known as the

A. pH scale.  
B. Celsius scale.  
C. Mohs scale.  
D. Richter scale.

21. The system of plant and animal classification developed over two hundred years ago and still used today is based on
- A. acquired similarities.
  - B. structural similarities.
  - C. biochemical similarities.
  - D. environmental similarities.

- 
22. Which of the following is true about the planets in the solar system?
- A. All planets complete one revolution about every 365 days.
  - B. All planets have one moon.
  - C. All planets have an elliptical orbit.
  - D. All planets have the same surface temperature.

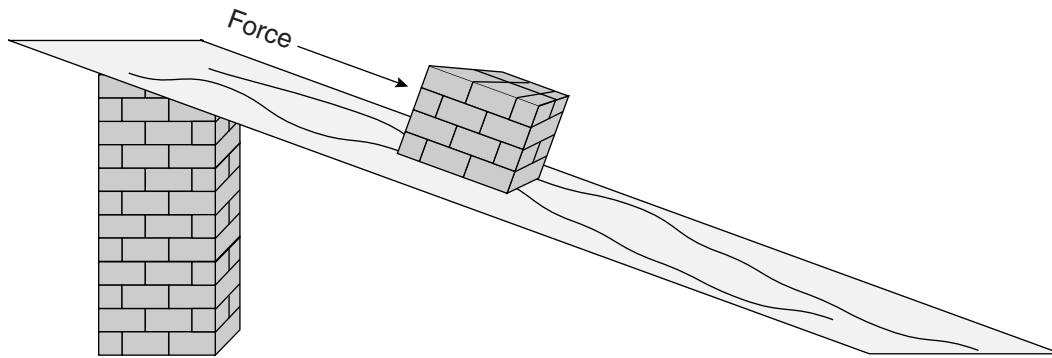
23. Sonar is a tool that uses sound waves to measure the depth of the ocean. Sonar bounces sound waves off of the ocean's floor. The time taken for the sound wave to leave a ship on the ocean's surface and return from the ocean's floor can be used to determine the depth of the ocean.

The chart below shows the sonar readings from four different ships moving over the surface of the ocean during a 1-hour period.

SHIP	SONAR READINGS			
	1st	2nd	3rd	4th
A	.10 sec	.15 sec	.17 sec	.21 sec
B	.17 sec	.21 sec	.18 sec	.15 sec
C	.21 sec	.17 sec	.15 sec	.10 sec
D	.11 sec	.08 sec	.15 sec	.09 sec

Which ship moved continuously from shallow to deeper water?

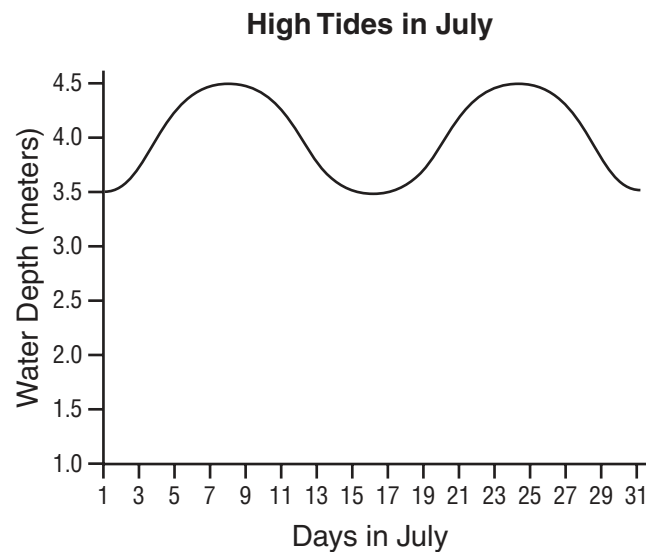
- A. Ship A
- B. Ship B
- C. Ship C
- D. Ship D



24. What variable can be changed to increase the acceleration of this stack of bricks?
- A. decrease the force
  - B. increase the mass
  - C. decrease the mass
  - D. increase the friction

25. To find the volume of a few small marbles, a student will need which of the following scientific tools?

- A. a balance and a centimeter ruler
- B. a spring scale and a calculator
- C. a graduated cylinder and water
- D. a microscope and a micron ruler



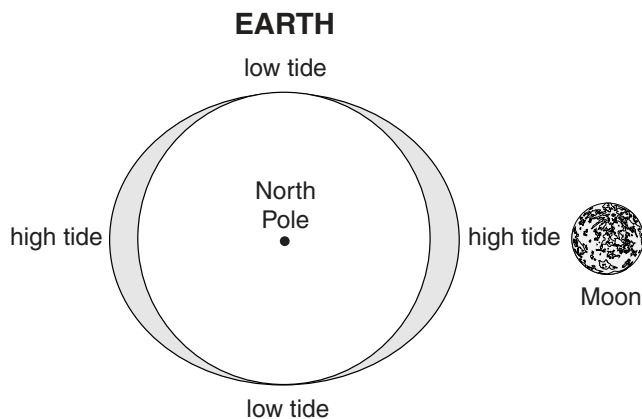
26. The graph above shows the high tide levels for each day in July. On what day would you predict a full moon occurring?
- A. July 3
  - B. July 8
  - C. July 21
  - D. July 29

27. A forest of trees with white bark is home to a species of gray moth and to birds which prey on them. Pollution made the bark of the trees go black. Several years later most of the moths found had wings that were

- A. shorter.
- B. longer.
- C. lighter.
- D. darker.

29. Organisms that require oxygen must transfer molecules of oxygen from their environment to their cells. In humans, which two systems are directly involved in the transfer of oxygen from the environment to their cells?

- A. circulatory and nervous
- B. respiratory and digestive
- C. digestive and nervous
- D. respiratory and circulatory



28. The diagram shows the pattern of tides on Earth. They are caused by

- A. Earth's gravity and the Moon's rotations on its axis.
- B. Earth's rotations on its axis and the Moon's gravity.
- C. Earth's revolutions around the Sun and the Moon's gravity.
- D. Earth's gravity and the Moon's revolutions around the Earth.

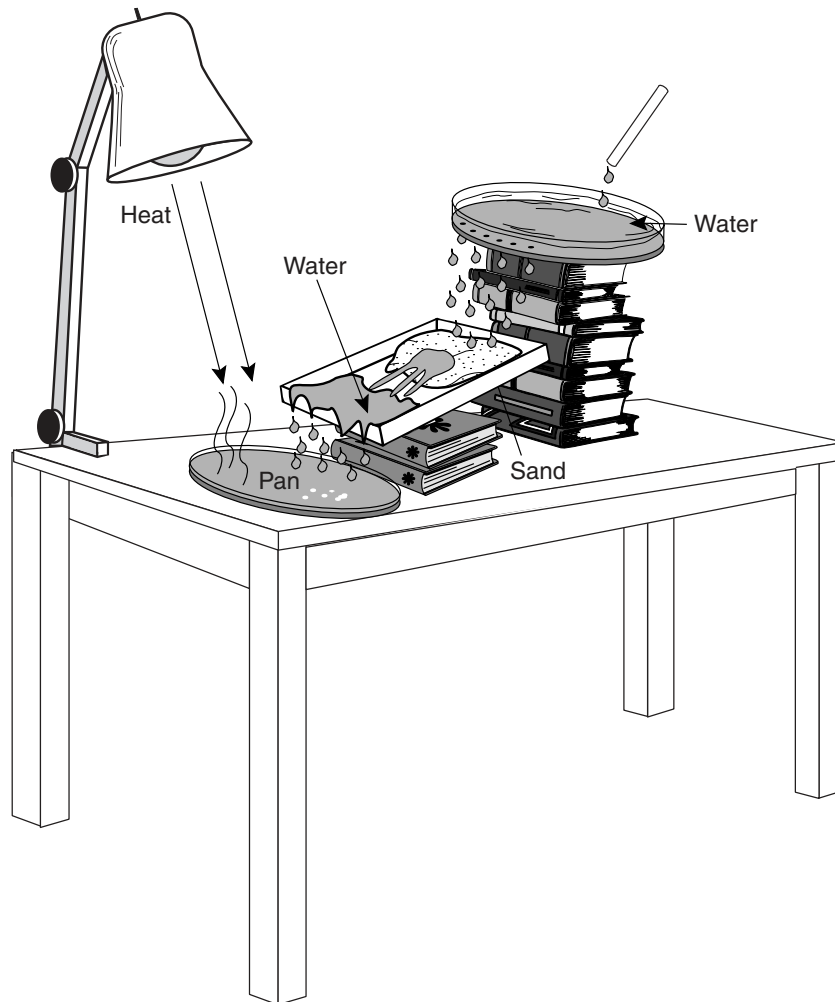
30. The smallest particle of any element that still has the properties of that element is called

- A. an atom.
- B. a compound.
- C. a solution.
- D. a mixture.

31. Plants and animals require large amounts of water in order to survive. Although vast numbers of plants and animals have lived throughout time, the water in our environment has not been used up. Which of the following explains why?

- A. Vast quantities of water are created by lightning in clouds.
- B. Organisms return water to the environment after they use it.
- C. Organisms combine hydrogen and oxygen to make their own water.
- D. Water continually flows from the center of the earth.

**DIRECTIONS FOR QUESTION 32:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You may use words, tables, diagrams, or drawings. Write your answer on page 30 of your answer folder.



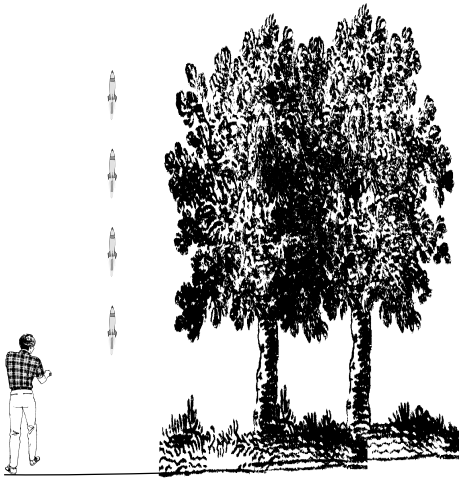
32. The above apparatus models the workings of the water cycle, but one step in the cycle is left out.

- Identify the missing step.
- Describe what happens during that step in the water cycle.
- Explain why the cycle would cease to exist if this step were left out in real life.



**SCIENCE - PART 3**

**DIRECTIONS FOR QUESTIONS 33 THROUGH 47:** For each of the questions or incomplete statements below, choose the best of the answer choices given, and fill in the corresponding circle on page 31 of your answer folder.



33. A model rocket is launched straight upward from the surface of the Earth at a speed of 50 m/sec. At its highest point above ground, its velocity in m/sec will be

A. 0  
B. 10  
C. 20  
D. 50

34. Which of the following pieces of equipment would be most useful for a scientist studying the behavior of a pack of wolves in the wild?

A. magnifying glass  
B. microscope  
C. binoculars  
D. radio telescope

35. Which of the following statements correctly describes forces that uplift and wear down the Earth's surface?

A. Erosion builds up mountains, which are then flattened by volcanoes.  
B. Volcanic activity creates mountains, which are then worn down by erosion.  
C. Volcanic activity creates mountains, which are sharpened over time by glaciation.  
D. Weathering lifts soil out of the sea, which is then distributed to rivers by erosion.

36. You need to dissolve 1 g of salt in 150 mL of water. After dissolving the salt in the water, you realize that you mistakenly used 175 mL of water. What can you do to correct this?

A. Pour out 25 mL of water.  
B. Filter the water using a funnel and filter paper.  
C. Wait for the salt to settle out of the solution.  
D. Boil the water until only 150 mL remains.

37. The distance from Earth to the Moon is approximately 384,000 km. If the distance were to increase to 500,000 km, which statement about the tides would be correct?

- A. There would be no high tides or low tides.
- B. The difference between high and low tide would be much greater.
- C. The difference between high and low tide would be much less.
- D. The difference between high and low tide would not change.

38. When succession takes place in a marsh, which of the following is likely to happen?

- A. Water level rises and a lake is formed.
- B. Bigger plants appear as water levels rise in the marsh.
- C. Water gradually disappears and the area becomes dry land.
- D. There are fewer trees to take in carbon dioxide and produce oxygen.

39. A tight metal lid on a glass jar of jelly may loosen when held under a flow of hot water. The hot water causes the

- A. metal lid to contract.
- B. metal lid to expand more than the glass jar expands.
- C. glass jar to contract.
- D. glass jar to expand more than the metal lid expands.

40.



41. Why does the tail of a comet always point away from the Sun?

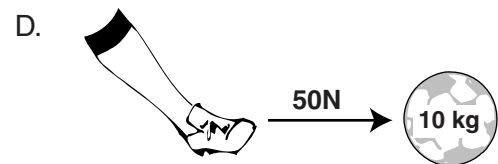
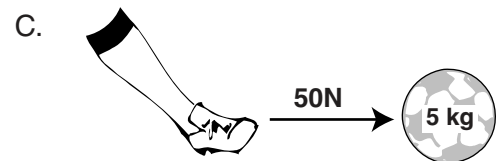
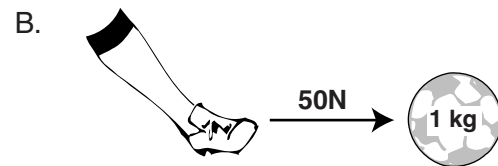
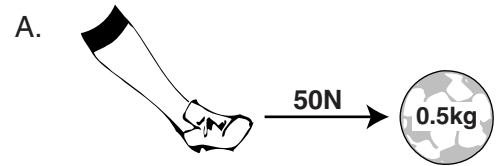
- A. The gravity of the planets pulls the comet's tail away.
- B. Explosions and the tearing away of ice particles happen on the side of the comet away from the Sun.
- C. The solar wind pushes the ionized gasses away.
- D. Comets spin so rapidly that particles are thrown off by centrifugal force away from the Sun.

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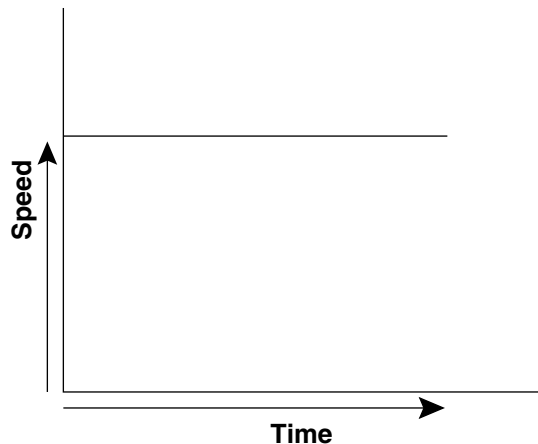
42. You are given a solution of sugar and sand in water. Your task is to separate the sugar from the sand. Which of the following experimental designs would you choose?

- A. Filter out the sand and evaporate the water.
- B. Filter out the sugar.
- C. Let the solution stand for several minutes to let the sugar and sand settle out.
- D. Use a magnet to separate the sugar from the sand.

43. The illustrations show soccer balls of different masses being kicked with equal force. Which ball will have the greatest acceleration?

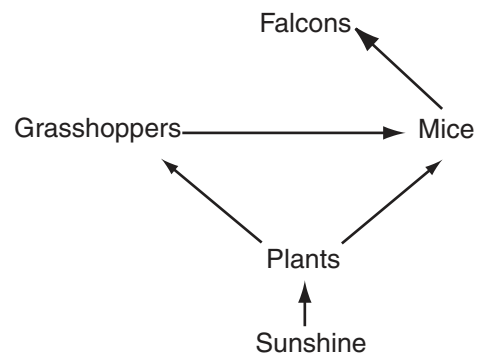


44. Why do the faster-running deer tend to be found more frequently in a deer population?
- A. Slow-running deer reproduce more slowly.
  - B. Slow-running deer are unable to compete for food.
  - C. Fast-running deer have more fawns per doe.
  - D. Fast-running deer are able to escape predators.



45. Which of the following statements best describes the relationship between speed and time shown in the graph above?
- A. Speed remains constant over time.
  - B. Speed increases over time.
  - C. Speed decreases over time.
  - D. There is no relationship between speed and time.

46.



47. What can you conclude about animals, based on the food web shown above?
- A. They require only sunlight to survive.
  - B. They can make their own food.
  - C. They do not eat plants.
  - D. They must eat other organisms to obtain energy.

**DIRECTIONS FOR QUESTION 48:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You may use words, tables, diagrams, or drawings. Write your answer on page 32 of your answer folder.



48. The only predator of the rabbit population in a meadow ecosystem has been removed.

- Predict what will happen to both the rabbit and the plant populations in the ecosystem in the first 6 months and after 5 years.
- Explain the reasons for your predictions.



## DIRECTIONS FOR SOCIAL STUDIES

The Social Studies section of the Grade Eight Proficiency Assessment is made up of three parts consisting of multiple-choice questions and open-ended questions.

Work as rapidly as you can without sacrificing accuracy. Do not spend too much time puzzling over a question. Answer the easier questions first; then return to the harder ones.

Where necessary, you may use blank spaces in the test booklet for your work.

**YOU MUST RECORD ALL OF YOUR ANSWERS IN THE SEPARATE ANSWER FOLDER.** No credit will be given for anything written in this test booklet. Your responses must be in English in order to be scored.

For multiple-choice questions, mark only one answer for each question by filling in the corresponding circle in the answer folder. **MAKE SURE THAT EACH MARK IS HEAVY AND DARK AND COMPLETELY FILLS THE CIRCLE.** If you change an answer, be sure to erase your first choice completely. Incomplete erasures may be read as intended answers.

Respond fully to the open-ended questions in the area provided in the answer folder. When asked to explain an answer, you may use words, tables, diagrams, or drawings.

**SOCIAL STUDIES - PART 1**

**DIRECTIONS FOR QUESTIONS 1 THROUGH 15:** For each of the questions or incomplete statements below, select the answer choice that is best in each case, and fill in the corresponding lettered space on page 33 in your answer folder with a heavy, dark mark.

1. Currency, as a means of exchange, was made possible by which historical development?

- A. domestication of animals
- B. creation of stable systems of government
- C. formation of permanent hunter-gatherer societies
- D. development of religions based on a belief in a single god

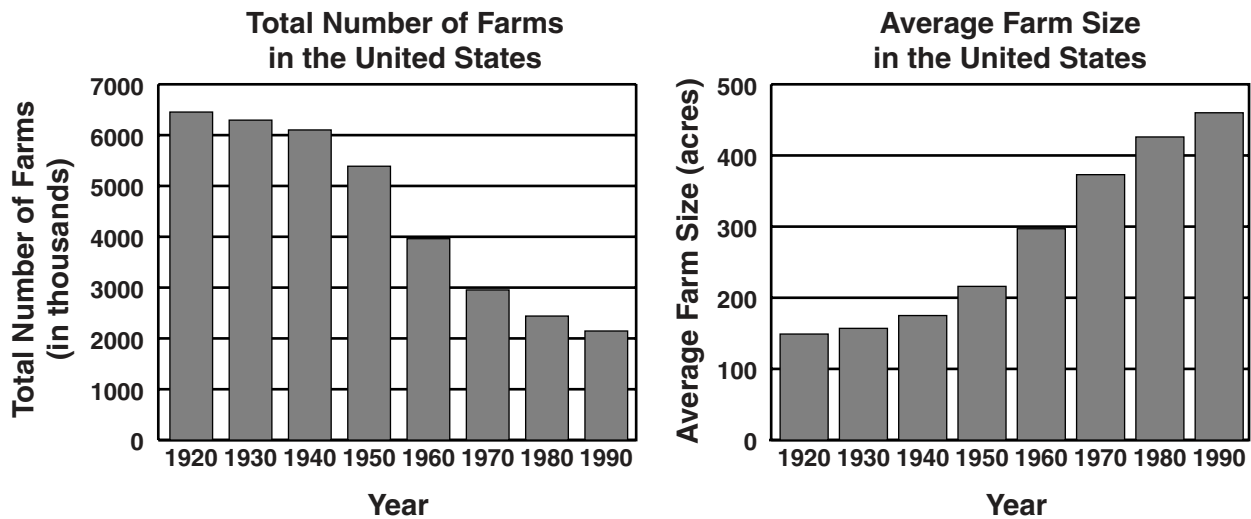
- 
2. What information could be determined by using the scale on a map?

- A. types of political boundaries shown on a map
- B. populations of cities and towns shown on a map
- C. distance between two locations shown on a map
- D. latitude and longitude of a location shown on a map

3. What does the following passage demonstrate?

*The buffalo was even more indispensable to the Plains Indians than the horse, providing them with food, clothing, shelter, and even fuel. Necessities, luxuries, ornaments, tools, bedding, their very tepees - all were fashioned from the flesh, bone, and hide of the buffalo.*

- A. Meeting universal needs often depends on cultural and geographic factors.
- B. Universal needs lead people to create governments to meet religious needs.
- C. A society's religious beliefs vary depending on geographic and political factors.
- D. A society's government creates institutions that meet individual and group needs.



4. According to the graphs above, which of the following is true regarding farms in the United States?

- A. Farms have a decreased reliance on technology.
- B. Small farms have been combined into larger farms.
- C. The number of people living on farms has increased.
- D. Farmers have increased their dependence on foreign aid.

5. Individuals under the age of eighteen can affect the outcomes of elections by

- A. watching television news reports about the candidates.
- B. running for public office in local government elections.
- C. registering to vote in local, state, and national elections.
- D. volunteering to work at a campaign headquarters.

6. All of the following factors contributed to the decline of feudalism in Europe EXCEPT the

- A. spread of the bubonic plague.
- B. military failure of the Crusades.
- C. travels of Marco Polo.
- D. growth of an urban merchant class.

7. The rapid growth of the world's population in the last fifty years is due, in part, to scientific advances in
- A. space exploration and oceanography.
  - B. health care and medicine.
  - C. computers and the Internet.
  - D. weapons and military technology.

9. In 1215, King John of England was forced by a group of nobles to sign the Magna Carta. What was the result of this action?
- A. Limits were placed on the power of English kings.
  - B. Christianity became the official religion of England.
  - C. English knights were required to join in the Crusades.
  - D. England sent ships to establish colonies in the Americas.

8. Consider the following lyrics by Bruce Springsteen:

*New Jersey Turnpike  
Ridin' on a wet night  
'Neath the refinery's glow  
Out where the great black rivers flow*

The above song lyrics highlight which of the following contemporary issues?

- A. growth of suburbs near large cities
- B. economic effects of natural disasters
- C. high cost of maintaining the highway system
- D. environmental effects of industrial development

10. When Arabian armies took control of Egypt in the mid-seventh century, they brought with them the religion of Islam. In the years that followed, many Egyptians chose to convert to Islam. This is an example of cultural
- A. isolation.
  - B. diffusion.
  - C. separation.
  - D. discrimination.





11. What is one important difference between the hunter-gatherer and the agricultural societies?

- A. Hunter-gatherer societies were early forms of capitalism.
- B. Agricultural societies led directly to democratic communities.
- C. Agricultural societies allowed for more stationary populations.
- D. Hunter-gatherer societies allowed for greater population growth.

---

12. Which of the following economic activities were responsible for the rapid growth of urban areas in New Jersey in the twentieth century?

- A. agriculture and fishing
- B. education and publishing
- C. mining and timber harvesting
- D. manufacturing and transportation

13. At the Constitutional Convention, there was a debate over two plans for setting up the legislative branch of government. These were the two plans:

**VIRGINIA PLAN**

Each state would be represented according to the size of its population.

**NEW JERSEY PLAN**

Each state would have the same number of representatives.

The debate was resolved by a third plan:

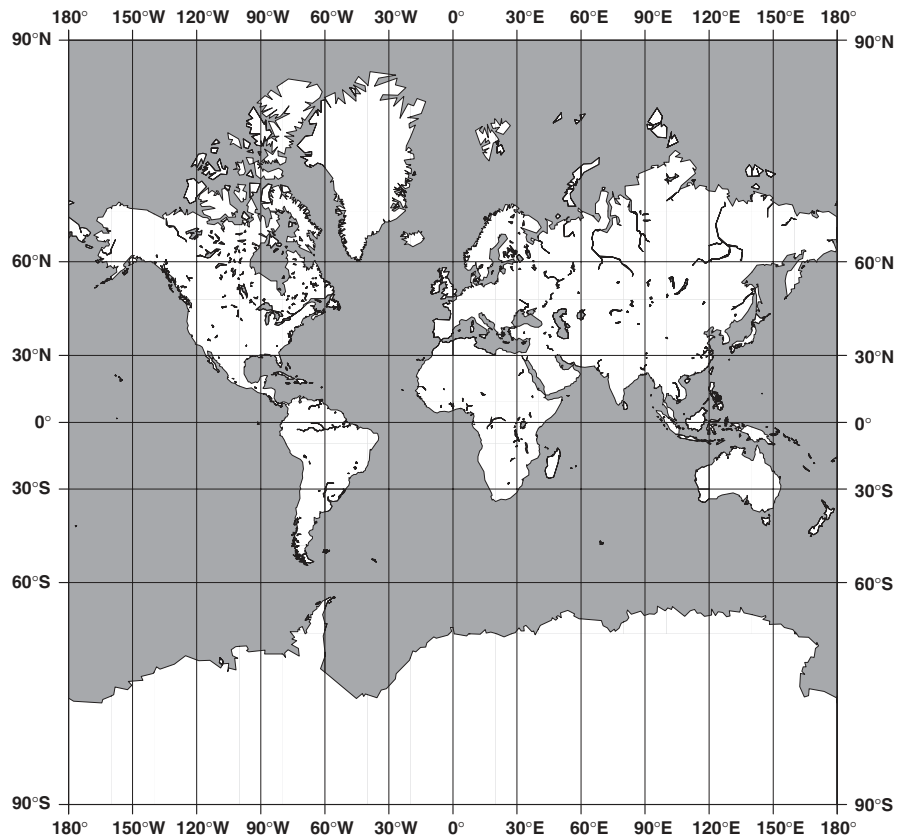
**CONNECTICUT PLAN**

(the GREAT COMPROMISE)

The legislature would have two houses. In one house the states would be represented according to population. In the other house, each state would be represented equally.

What issue was settled by the Connecticut Plan?

- A. how to count the states' population
- B. how the president should be elected
- C. how the larger and smaller states could share power
- D. how the states and the federal government could share power



14. The type of map shown above is called a Mercator projection. What is the main weakness of the Mercator projection?
- A. Not all the earth's oceans can be viewed at the same time.
  - B. Areas far from the equator are distorted and appear too large.
  - C. Not all the earth's continents can be viewed at the same time.
  - D. Areas far from the prime meridian are distorted and appear too large.

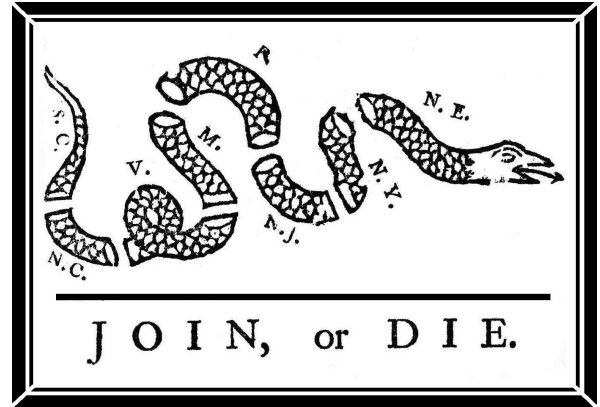


15. The Amish are a religious group with strict rules for worship and daily life. In the late 1700s, they came to the United States from Europe, where they had been unable to live according to their own beliefs. Initially, Americans did not understand or accept the Amish ways either. Nevertheless, the Amish built their own communities and tried to live as good neighbors and good citizens in their new land.

As described above, which best explains the Amish experience in both Europe and the United States?

- A. They were the victims of prejudice.
- B. They were disliked because of their race.
- C. They were denied the right to own property.
- D. They were expelled from their native land.

**DIRECTIONS FOR QUESTION 16:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You may use words, tables, diagrams, or drawings. Write your answer on page 34 in your answer folder.



16. This cartoon was drawn by Benjamin Franklin in 1754 during the French and Indian War (Seven Years War). He printed it again during the American Revolution.
- Explain how this cartoon is a symbol that reflects a political viewpoint in Colonial America. Use the cartoon and what you already know to develop your response.







## SOCIAL STUDIES - PART 2

**DIRECTIONS FOR QUESTIONS 17 THROUGH 31:** For each of the questions or incomplete statements below, select the answer choice that is best in each case, and fill in the corresponding lettered space on page 35 in your answer folder with a heavy, dark mark.

17. In order to supply the Atlantic slave trade in the 1600s, European slave traders in Ghana, West Africa, often purchased the captives of wars between different cultural groups. By paying high prices for these prisoners, European slave traders encouraged the warring cultural groups to

- A. resolve their differences and make peace.
- B. kill their enemies rather than take prisoners.
- C. leave Ghana and migrate to other areas of Africa.
- D. continue fighting in order to capture more people.

18. Which of the following actions by the United States government would have the greatest economic effect on families and individual citizens?

- A. a decrease in personal income tax rates
- B. an increase in land set aside for national parks
- C. the nomination of a new Supreme Court justice
- D. the decision to construct more interstate highways

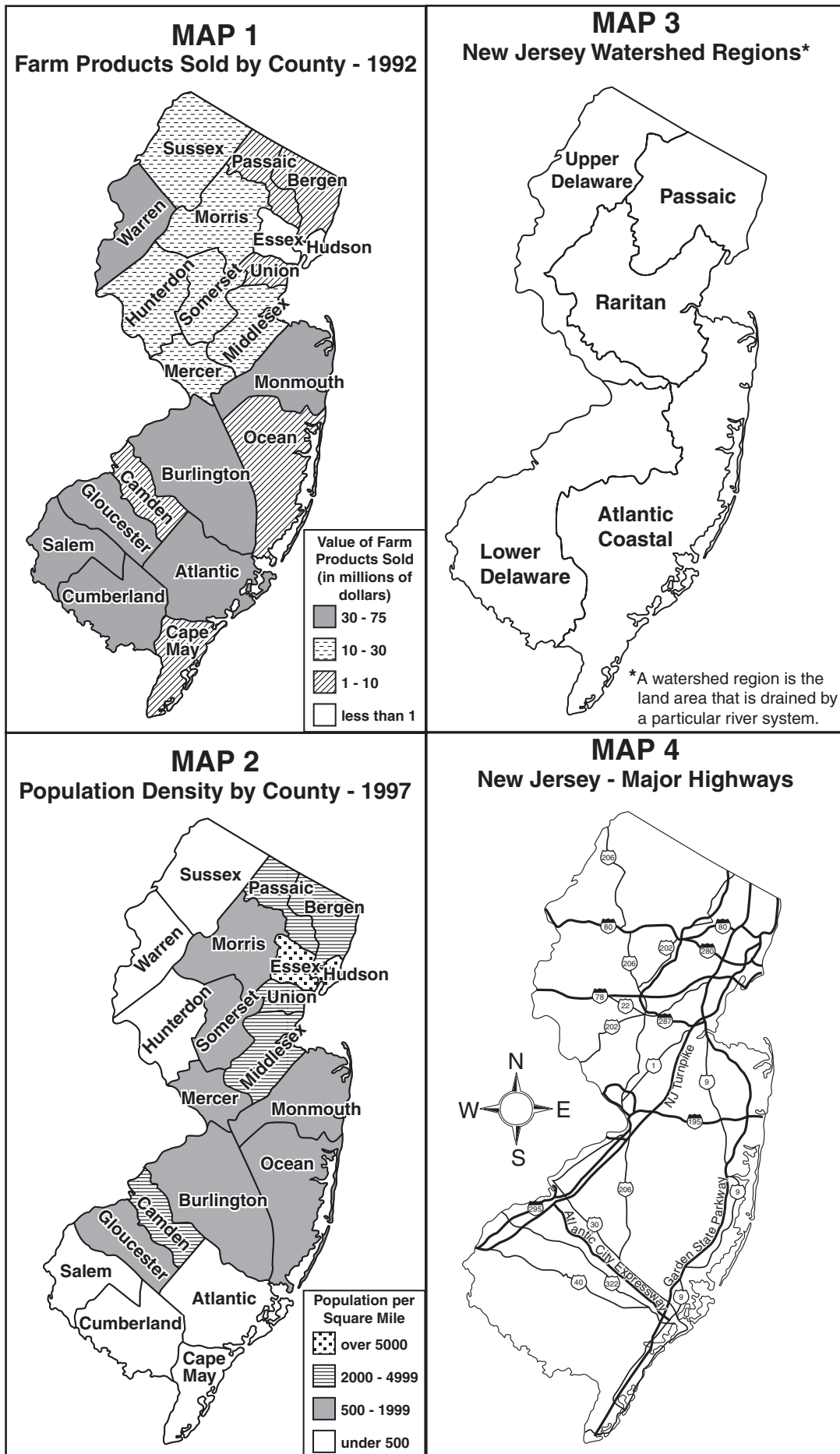
19. In drafting the Declaration of Independence, Thomas Jefferson proposed the following criticism of King George III, which was not included in the final version:

*He has waged cruel war against human nature itself, violating its most sacred rights of life and liberty in the persons of distant people who never offended him, captivating and carrying them into slavery in another hemisphere, or to incur miserable death. . . .*

The most likely reason why this statement was NOT included in the Declaration of Independence was to

- A. prevent France from getting involved in the war.
- B. avoid losing the support of the southern colonies.
- C. ensure the support of free blacks in northern colonies.
- D. persuade American Indians to help fight against the British.

Use the maps below to answer the next three questions.





20. Which map indicates structures built by humans?

- A. Map 1
- B. Map 2
- C. Map 3
- D. Map 4

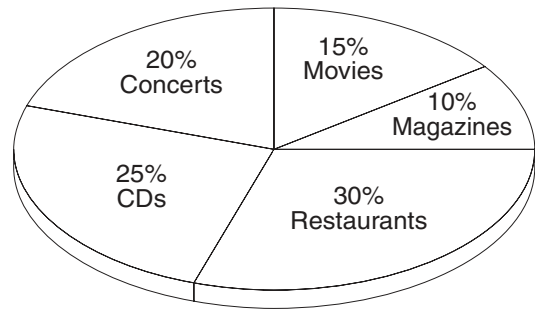
21. Which of the following features is NOT found on any of the four maps?

- A. title
- B. scale
- C. legend
- D. compass rose

22. Two New Jersey counties each produced less than one million dollars worth of farm products in 1992. Based on these maps, what factor best explains this?

- A. Those counties are too far north to be able to grow many crops.
- B. Restrictions on water use prohibit irrigation in that watershed region.
- C. High population density in those counties leaves little room for farmland.
- D. There are few major highways in those counties, so it is difficult to transport farm products to market.

**Lisa's Entertainment Budget**



23. This is Lisa's entertainment budget. Which of the following is an example of an opportunity cost (trade-off)?
- A. Lisa decides to buy a different magazine than the one she usually buys.
  - B. Lisa doesn't like a CD she bought, so she returns it to the store for a refund.
  - C. Lisa's favorite place to eat goes out of business, so she must find another place.
  - D. Lisa wants to spend more on concerts, so she must spend less on other entertainment categories.



24. The War of 1812 has been described by some historians as a "Second War of Independence." This is because the War of 1812
- A. freed the people of the Louisiana territory from the tyranny of French rule.
  - B. resulted in the abolition of slavery in all of the territory controlled by the United States.
  - C. demonstrated that the United States could defend itself against attack by European nations.
  - D. inspired the people of the United States to overthrow the government and write a new constitution.
- 
25. All of the following sources would be useful in determining the locations of mineral deposits around the world EXCEPT
- A. an atlas.
  - B. a globe.
  - C. an almanac.
  - D. the Internet.
26. If the president vetoes an act of Congress, it can become a law if
- A. the Supreme Court unanimously votes for it.
  - B. two-thirds of the Supreme Court deems it constitutional.
  - C. one-half of both houses of Congress votes for it.
  - D. two-thirds of both houses of Congress vote for it.
- 
27. European farmers in the Middle Ages rotated the use of their land. Each year they planted crops on only two-thirds of the farmland, and the remaining one-third was left unused. As a result, the soil was not depleted of nutrients. This is an example of
- A. urbanization.
  - B. supply and demand.
  - C. sustainable resource use.
  - D. desertification.





28. The cartoon above, depicting President Andrew Jackson, was published in 1833. The cartoon reflects the opinion that President Jackson was
- A. not qualified to be president.
  - B. unable to make important decisions.
  - C. abusing the power of the presidency.
  - D. overly influenced by European political ideas.



29. Which of the following has been an effect of the growth of the Internet in recent years?

- A. People have become more interested in sending handwritten letters.
- B. People have become less interested in events that take place in other countries.
- C. It has become more difficult for people to ship goods to people in other countries.
- D. It has become easier for people all over the world to exchange ideas with one another.

30. All of the following characteristics are common to Judaism, Christianity, and Islam EXCEPT

- A. the existence of a sacred book.
- B. a belief in only one god.
- C. origins in the same general region of the world.
- D. celebration of the same religious holidays.

**How European Scholars  
Explained the Physical World**

Before	After
<ul style="list-style-type: none"><li>• religious teachings</li><li>• traditional beliefs</li><li>• superstition</li></ul>	<ul style="list-style-type: none"><li>• careful observation and measurement</li><li>• experiments</li><li>• formal reasoning</li></ul>

31. The changes shown in the lists above were a result of which of the following?

- A. the Fall of the Roman Empire
- B. the Crusades
- C. the Scientific Revolution
- D. the American Revolution



**DIRECTIONS FOR QUESTION 32:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You may use words, tables, diagrams, or drawings. Write your answer on page 36 in your answer folder.

32. Cultural change often occurs as a result of historical events.
- Select **two** events from the list below.
  - Describe **two** cultural changes that occurred as a result of each event you selected.
    1. the Louisiana Purchase
    2. the annexation of Texas and the Mexican War
    3. the Seneca Falls Convention
    4. the Civil War







## SOCIAL STUDIES - PART 3

**DIRECTIONS FOR QUESTIONS 33 THROUGH 47:** For each of the questions or incomplete statements below, select the answer choice that is best in each case, and fill in the corresponding lettered space on page 37 in your answer folder with a heavy, dark mark.

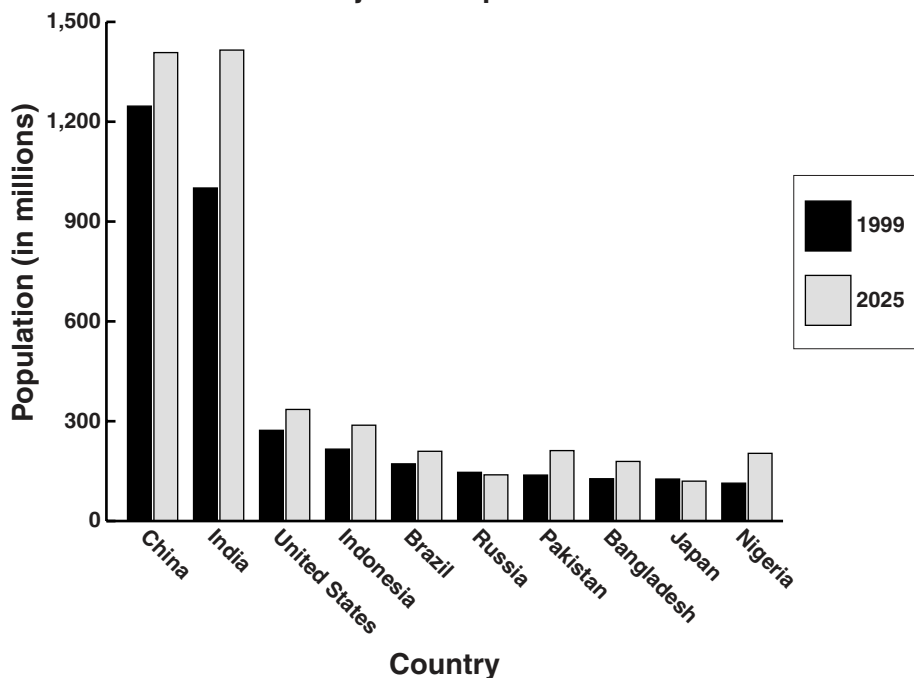
- |  |  |
|--|--|
| <p>33. Which of the following was a cultural contribution of the ancient Greek city-state of Athens?</p> <ul style="list-style-type: none"><li>A. the creation of the first written language</li><li>B. a model for a democratic system of government</li><li>C. the exploration and mapping of the coast of Western Europe</li><li>D. a religion based on the belief in one god</li></ul>                             | <p>35. Voting in elections is a right of United States citizenship. Which of the following is a responsibility of all voters?</p> <ul style="list-style-type: none"><li>A. running for public office</li><li>B. contributing money to political campaigns</li><li>C. attending national political party conventions</li><li>D. educating themselves about the candidates and the issues</li></ul>  |
| <p>34. By the 1820s, farmers in the midwestern United States were sending crops and raw materials to the East and the South. Eastern factories were sending manufactured goods, such as textiles, to the Midwest. This growth of trade was made possible by the invention of the</p> <ul style="list-style-type: none"><li>A. telegraph.</li><li>B. cotton gin.</li><li>C. steamboat.</li><li>D. automobile.</li></ul> | <p>36. As the problem of heavy traffic on New Jersey's highways increases, one solution has been the construction of new roads. Which of the following is an opportunity cost (trade-off) of building more roads and highways?</p> <ul style="list-style-type: none"><li>A. licensing of more cars and trucks</li><li>B. loss of farmland and natural habitats</li><li>C. installation of road signs on new highways</li><li>D. construction of more gas stations and rest areas</li></ul> |



Use the graphs below to answer the next two questions.

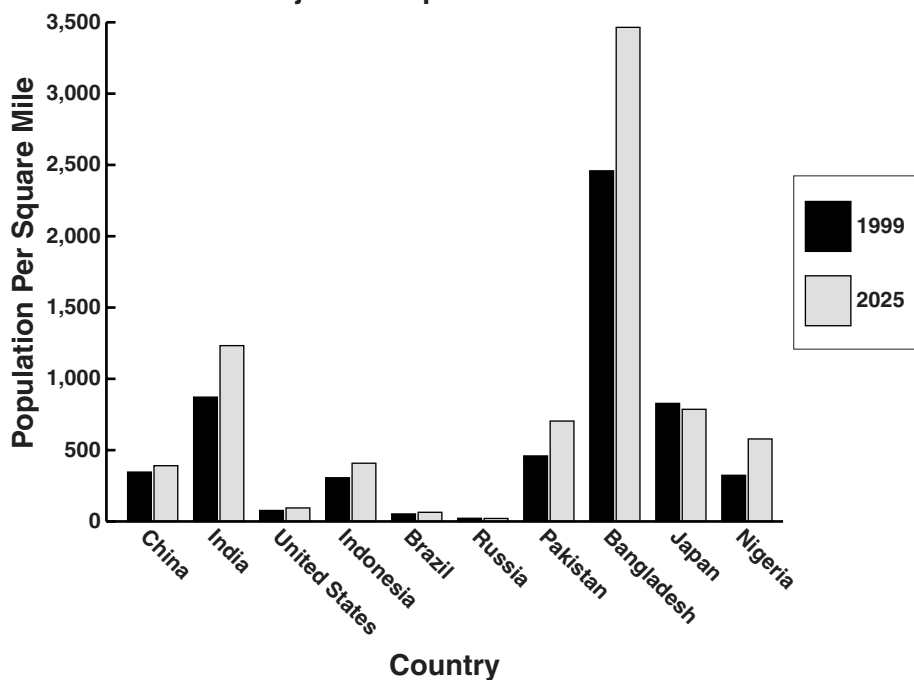
**GRAPH 1**

**Populations of Selected Countries in 1999  
and Their Projected Populations in 2025**



**GRAPH 2**

**Population Densities of Selected Countries in 1999  
and Their Projected Population Densities in 2025**



G262.art



37. Which countries shown on these graphs are expected to experience the least amount of change in population between 1999 and 2025?

- A. China and India
- B. Russia and Japan
- C. Indonesia and Nigeria
- D. Pakistan and Bangladesh

38. Which country shown on these graphs will experience the greatest increase in population between 1999 and 2025?

- A. India
- B. China
- C. Nigeria
- D. Bangladesh

39. The Bill of Rights guarantees certain rights to all persons accused of crimes. These rights include a trial by jury and the right to be represented by a lawyer. Why is it important to protect the rights of the accused?

- A. to ensure that trials are fair
- B. to increase the power of judges
- C. to prevent criminals from escaping
- D. to encourage people to serve on juries

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40. Sales of products made from recycled materials have increased in recent years. Even though they often cost more than other products, the success of these products is due to the

- A. influence of labor unions.
- B. attitudes and beliefs of consumers.
- C. use of barter as a means of exchange.
- D. lack of competition in a command economy.



41. Saudi Arabia is one of the world's leading oil-producing countries. However, because of its desert climate, it must import nearly all of its food. This is an example of international
- A. conflict.
  - B. isolation.
  - C. competition.
  - D. interdependence.
- 
42. Which of the following demonstrates how the United States Constitution is a flexible, living document?
- A. Senate committee hearings
  - B. the amendment process
  - C. national presidential elections
  - D. political party conventions
43. All of the following were lasting contributions of the Muslim Empires EXCEPT
- A. achievements in science, technology, and mathematics.
  - B. achievements in art and architecture.
  - C. extensive trade networks in Africa and Asia.
  - D. colonization of the Western Hemisphere.
- 
44. Which of the following was an economic factor in sixteenth-century Europe that led to the exploration of North America?
- A. underpopulation
  - B. expansion of trade
  - C. agricultural surplus
  - D. inadequate labor supply





	<b>The Ancient Roman Republic</b>	<b>The United States of America Today</b>
<b>Executive</b>	Two consuls – elected by the assembly	One president – elected by the people through the Electoral College
<b>Legislative</b>	Senate – 300 members, chosen from the upper class for life  Centuriate Assembly – all citizen soldiers are members for life  Tribal Assembly – other citizens	Senate – 100 members, elected by the people for six-year terms  House of Representatives – elected by the people for two-year terms
<b>Judicial</b>	Praetors – eight judges	Supreme Court – nine justices
<b>Legal Code</b>	Twelve Tables – list of rules, the basis of Roman law	Constitution – basic law of United States
<b>Citizenship</b>	All adult male landowners	All native-born or naturalized persons

45. Based on the information shown above, in what way are the governments of the ancient Roman Republic and the United States of America most similar?
- A. requirements for citizenship
  - B. terms of office of legislators
  - C. number of executives
  - D. structure of the branches of government



46. Which of the following is a characteristic of a free-market economy?
- A. The price of goods is determined by supply and demand.
  - B. Businesses do not need licenses in order to produce and sell goods.
  - C. Customers do not pay sales taxes on goods that are locally produced.
  - D. Many goods are produced by the government, and citizens receive them at no charge.

- 
47. The Nile River often floods its banks. These floods were an advantage to the people of ancient Egypt because the floodwaters
- A. fertilized the farmland in the river valley.
  - B. protected the treasures buried in the pyramids.
  - C. made it easier for ships to carry goods upstream.
  - D. prevented invading armies from reaching Egyptian cities.

**DIRECTIONS FOR QUESTION 48:** Respond fully to the open-ended question that follows. Show your work and clearly explain your answer. You may use words, tables, diagrams, or drawings. Write your answer on page 38 in your answer folder.

48. Although most citizens of New Jersey regard their shoreline as a valued resource, they do not agree about how it should be used.
- Describe one possible consequence for each of the following suggestions for activity at the shore.

**Be sure to number your responses to correspond to the activity you are talking about.**

1. stopping further residential and commercial development
2. mining for oil and other mineral resources off shore
3. increased development of the shore's entertainment industries
4. expansion of the fishing industry



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